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THE

MEDICAL AND SURGICAL REPORTER

EDITED BY

CHARLES W. DULLES, M.D.

JULY TO DECEMBER, 1890.

VOL. LXIII.

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MEDICAL AND SURGICAL REPORTER

No. 1740. PHILADELPHIA, JULY 5, 1890. Vol. LXIII.—No. 1.

Clinical Lecture.

DILATED HEART.—PROGRESSIVE MUSCULAR ATROPHY.—REGURGITANT HEART DISEASE.

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Dilated Heart.

There are heart troubles of much greater importance than valvular lesions, and one who pays attention to murmurs alone is apt to go wrong in his prognosis. Here is a man with a dilated and weak heart, who gives a very imperfect history of feeling badly. He is pale and is extremely slow in all his movements. His pulse is only 60, and is weak. The apex beat is diffused; both heart sounds are faint, and the first is impure. There is no indication of any special structural lesion of the heart, other than the dilatation; but the condition is probably the result of a strain of the heart, perhaps from over-use of alcohol, overwork, grief or anxiety. It sometimes occurs in the insane who are melancholic for a long time, and sometimes it cannot be accounted for. During the year I have seen a business man who has had no physical strain nor any particular grief or trouble except mental anxiety, whose muscles are soft, whose heart is weak and dilated, with diffused apex-beat and depressed innervation.

The condition of such patients is more serious than if they had a valvular trouble and a heart otherwise fairly well and strong; because degenerative changes might easily occur. Such a man might suddenly fall dead; but, ordinarily, he would get weaker and weaker until some time, with a cold, he would die of lobular pneumonia; or, having a diarrhœa, he would die of an enteritis; or he would succumb to some other disease which would not be dangerous to a man in a normal condition.

But I wish to prove to you why I think this man will get well under proper treatment. Here is another man, a large, brawny laborer of magnificent physique who has been handling stones on the breakwater. And yet, in spite of his splendid muscles, he came into the hospital a few weeks ago completely broken down in strength, with a weak pulse, beating not much over 40 to the minute, and with cyanosed, cold and sweaty hands. I made the diagnosis of precisely the same condition as that which we found in the patient who just went out. I said that he would get well if placed on heart tonics, properly stimulated and kept in bed. To-day you see him a man in good health, with a pulse of seventy, which is not very compressible. He is anxious to go back to work; and, in fact, he felt able to go last week; but if he had left the hospital then he would probably have come back in two or three weeks in the same condition as at first; for such patients require prolonged treatment.

His bowels were kept open, and the surface of the body was kept warm; he was given strychnine and sufficient strophanthus to keep his heart in good tone; but the most important thing was the rest in bed. It is rather difficult to get a business man to go to bed for two or three months; but you should advise it; and then have him go on a voyage or to the mountains, where he can climb moderately and be in cheerful surroundings.

Now this man is well; but if he goes back to handling stones on the breakwater, and returns to a diet of black bread and beer, the stomach being distended and digestion slow and the surroundings depressing so that the man will be fatigued and wishing he were dead all the time, he will, in a short time return to his original condition. You will think it rather odd that I have cautioned

this man against eating black bread, for laboring men have good digestion usually and do not like to eat easily-digested food, because their stomachs soon become empty. In the North woods the men have a peculiar kind of pie made for them which has to be cut with a hatchet. It is proper for such people to take food of slow digestion, but when they get into this man's condition, they should have easily digested food.

Progressive Muscular Atrophy.

This patient, a Dane, about thirty years old, enjoyed good health until two or three years ago, when he noticed something wrong in his back. He has a remarkable curvature of the spine, the upper dorsal and cervical vertebræ are in a straight line, but the lower dorsal vertebræ make a considerable curve to the right. The muscles of the left side seem rather better developed; but this may be merely apparent.

As he faces you, he looks like a healthy man; but he is very weak; he is unable to use his hands and legs as he should, and he cannot go on with his work. His grip is feeble, and there is a peculiar tremor in the muscles of the hand and arm. The thumb lies close to the second metacarpal bone, the thenar eminence has atrophied, and, from atrophy of the interossei, there are marked depressions between the metacarpal bones. From the characteristic appearance, we call it the "ape hand." The atrophy involves somewhat the muscles of the arms and legs. Sensation is unimpaired. When he throws out his arm suddenly, the muscles are put into a condition, not of spasm but of tremor. Sometimes we can develop this by striking the muscles; but in this case, this reflex, as well as the patellar reflex, is absent.

This is a case of a somewhat rare disease, progressive muscular atrophy, about whose pathology there has been much dispute in the last ten years. We can consider it due to atrophy of the motor ganglia in the anterior horns of the cord, but not originally, as in anterior poliomyelitis. The disease begins in the terminal motor nerves and the trophic nerves, not in the muscles themselves, as some have claimed. The muscles atrophy on account of the affection of the nerves. The disease follows up the nerve trunks, involving at length the motor ganglia of the anterior cornua, but stopping short of the pyramidal tract.

Bulbar paralysis which affects deglutition, speech, phonation, etc., is of the same nature; and both diseases are progressive. Do not confuse this with amyotrophic lateral sclerosis.

The prognosis is invariably unfavorable. The condition progresses from bad to worse, and unless some intercurrent disease causes death, it involves the nerves that preside over deglutition and respiration, and then the patient will die from starvation or asphyxia or general wasting from imperfect oxygenation of the blood. The disease may be checked temporarily; but after five or ten years it has usually reached its extreme limit.

The only treatment from which we have any hope of arresting the disease is Faradization or Galvanism. Still, from the mere application of electricity or massage you cannot expect much benefit when the nerve supply is cut off. I have recently tried suspension, without any very clear idea of how it was to do good. This man has now had it used on him three times a week for two weeks, without any change.

Regurgitant Heart Disease.

This man, a cooper, 41 years old, complains of cough, weakness and dyspnœa. Such a history should lead us to examine the lungs and heart, and if nothing is found wrong with those organs, the kidneys. I make out nothing wrong with the lungs. An aortic direct murmur is heard, but it is slight. A more marked sound is heard most plainly over the sternum and is carried downward. It is heard with the diastole, after the second sound, and is an aortic regurgitant murmur. Neither of these sounds is as distinct as one heard at the apex in systole. It is not the same as the systolic sound heard at the base, for that is transmitted up the carotids while this is heard also in the axilla and it is, therefore, a mitral regurgitant. The cardiac impulse is diffused and is felt most plainly just below the nipple, though it is also felt in the normal location. Judging from the enlarged area of cardiac dulness and the diffused apex beat, we have hypertrophy with dilatation of the left ventricle. This is due in part to the mitral regurgitation, but more to the lesion of the aortic valve.

The arteries are imperfectly filled, the pulse is regular but weak and compressible, and it is much weaker at the wrist when the arm is raised. There is not only interference with the arterial circulation but a dam-

ming back of venous blood. We should expect, therefore, an accentuation of the semilunar valve sound. It is not so marked as I expected: why, I do not know; but there may be a little emphysema of the overlying lung.

The man complains of cough and night-sweats. I dare say the night-sweats depend upon a general enfeeblement. People are always on the lookout for this symptom, and when they are sick, if they cover themselves up warm and perspire in consequence, they call it a night-sweat. The cough and a wheezing sound which this man says he has at night, would be explained by pulmonary congestion.

If there were simple mitral insufficiency present, with care there might be compensatory hypertrophy of the left ventricle, and he might perhaps resume hard work. But with the aortic lesions and a dilatation already commencing, he must avoid active exercise and sudden exposures to cold, and must keep himself up to his highest standard of health. As far as the mitral disease is concerned, digitalis would be indicated; but, in certain cases of aortic insufficiency, digitalis, by lengthening diastole and allowing a greater time for the blood to run back into the ventricle, increases dilatation. The indication for digitalis here, therefore, must be tested by experiment. If the man is disturbed on rising suddenly, and his faintness does not disappear under the use of digitalis, I would give caffeine instead—about four grains, repeated during the day. Barium chloride will occasionally relieve this mixed condition of heart lesion better than digitalis, strophanthus, convallaria or other drugs of that class. Besides this, the man should have tonics: strychnine being one of the best. He should take quite large doses every six hours. Observing this treatment and the hygienic rules laid down, I presume this man might be able to go on for two or three years without suffering markedly from his trouble.

—In the chemical journals it is stated that sulphurous acid has been repeatedly found to form during vinous fermentation. Dr. B. Haas has recently reported that sulphurous acid results from the decomposition of sulphates in the grape juice during slow fermentation, in sufficient quantities, often, to arrest the process, while during brisk fermentation this reaction was never noticed.

COMMUNICATIONS.

ANTISEPTIC MEDICATION.[1]

BY J. NEWTON HUNSBERGER, M. D.,
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Nothing within the last decade has so completely revolutionized surgery as the introduction and use of antisepsis; and nothing in medicine has given rise to more plausible theories than the attempted abortion and cure of septic diseases by the administration of anti-microbic remedies through the various avenues of internal medication. The pages of our journals are filled with reports of antiseptic drugs, each with its coterie of followers as fickle as a Roman populace. "Now this *drug* was cry'd incomparable, and the ensuing night made it a fool and beggar."

This has been especially the case within the last ten years, due to the great work done in the field of bacteriology, a most elaborate investigation, one that for true originality and scientific research has never been equaled in the annals of medicine, and will always remain as a magnificent memorial to Koch and his co-laborers.

It is now comparatively easy to isolate a specific germ, to surround it with an antiseptic solution, to note the struggle requisite to destroy the life of the germ, and to reason that you have a specific for that disease, and can control it almost at will. This would undoubtedly be the case if you could choose your own conditions and attract the microbe with a medicated loadstone to some available part and soak out his life. But he has more lives and vitality than the historical cat, and when once holding high revel in the delicate tissues of the body a solution strong enough to make him lose his hold is death to his habitat.

In 1872 Selmi gave the name of ptomaines to certain alkaloids, the results of organic bodies undergoing putrefaction. These ptomaines are found and produced principally in the alimentary tract, and Armand Gautier considers these alkaloids the physiological products of the living cell, just as vegetable cells produce alkaloids. According to Dujardin-Beaumetz fecal matters contain organic alkaloids having a quadruple origin; "they may result from the putre-

[1] Read before the Montgomery County Medical Society.

faction of absorbed albuminal substances; or they may take their source in alkaloids furnished by living cells, or due to the action of gastric juice on fibrin; or, lastly, may be the result of the presence of micro-organisms which exist even in the healthy individual in such great quantities in the digestive tube. We know by accurate physiological experiments the action of these ptomaines or leucomaines; we know that they determine in the living organism symptoms quite analogous to muscarin. They are veritable poisons to the heart, and you see developed in animals to which they are administered convulsive troubles and pupillary modifications."

This shows conclusively that we are constantly, even in health, developing a most virulent poison, and life can be preserved only by a proper action of the normal excretory organs and their consequent elimination. When the liver refuses to pour forth its bile—that physiological bichloride of the alimentary tract—or the great filtering sewers of the body—the kidneys—refuse to act, then only can we realize the virulence of these physiological alkaloids and the importance of their proper treatment.

Should not, then, the first indication for treatment be to secure a proper action of the emunctories of the body? Clinical experience and common sense would certainly point to the adoption of this plan to assist nature in her attempts at ridding herself of the poison.

But your antiseptic doctor would empty into his long-suffering patients drugs to neutralize these ptomaines, or, if he believes the leucomaines to be due to micro-organisms, he will exhibit a drug to kill them. He asks nothing from nature; he looks at her as a receptable filled with germs, and is utterly regardless as to whether she is lined with a mucous membrane with its delicate covering of cells, or whether that lining is made of zinc or copper, and after he has made a *post-mortem* examination of his case he will write an interesting account of some simple disease complicated with nephritis and the literature of medicine will be enriched (?) with another unique case. Or perhaps nature will assert her inherent power to heal and the patient will get well in spite of his medication; then he will laud his drugs to the skies and add another remedy to his antiseptic pharmacopœia, while his followers will add another leaf to the wreath of laurel that bedecks his antiseptic brow.

The white corpuscles are the antagonists of all septic germs that may get into the blood, and, according to Metschnikoff, they devour the microbes and digest them entirely. They are the purifiers of the blood, the standing army that guards so zealously the citadel of life; and when a patient recovers from septicemia, or any specific disease in fact, he does so, not on account of the exhibition of any antiseptic drug, but because of the antiseptic work of the leucocytes, aided by the rational and old-fashioned treatment of support and stimulation. A supporting treatment that puts the body in a condition to digest and assimilate food, to form new corpuscles who shall reinforce the sturdy fighters; and a stimulating treatment that calls out all the latent energy of the nervous system, to overcome the profound depression, until the leucocytes have overcome the enemy and the life of the patient is saved. This, I say, is true antisepsis; and clinical experience from time immemorial proves this to be the very best treatment.

Few dispute the value of iron in septic diseases like erysipelas, scarlet fever, diphtheria, pyemia and chronic interstitial nephritis. Iron outside of the body is a well-known ozonizing agent, as is shown by a particle of the oxide of iron eating into steel or tin. This action is due to the corroding property of ozone, which is slowly generated by the iron. It is also a well-established fact that the red corpuscle is the great ozonizing agent of the blood, and that iron increases this action in a marked degree. Dr. H. C. Wood says that iron acts directly on the blood as an ozonizing agent and, as such an agent, produces a most powerful antiseptic substance, and one whose value is still further enhanced by being a true physiological antiseptic in the broadest sense of the term. It is a food, rather than a medicine, and its value as a producer of corpuscles is so well known that I need only mention the fact.

When Koch discovered the tubercle bacillus, in 1882, pulmonary medication threatened to be revolutionized. Martin, Thomas and Arloing and hosts of others experimented with salicylic acid, bromine, eucalyptus, carbolic acid, thymol, creasote, bichloride of mercury, etc., and all failed to produce a remedy that would kill the bacillus without danger to the patient.

I will give you, briefly, Martin's mode of experimentation and his results. He crushed

and pressed viscera filled with tubercle, and the juice which he expressed was put into the fresh amniotic liquor of a sheep, and to the whole was added a given quantity of the drug to be experimented with. These mixtures were injected into the peritoneum of guinea-pigs, and on the death of the animals the inoculations were continued to test the value of the granulations found at the autopsy. In the case of salicylic acid five per cent. was powerless to destroy tubercle. Bromine, in solution of 1 to 1,000, was inefficacious; at 1 to 500 it was of more value; but here its effect was caustic. In the case of phenic acid, a solution of 6 to 100 had little effect, except to act as a caustic. Creasote—a drug so extensively used and for which so much has been claimed—failed to destroy the bacillus in a solution of 1 to 1,000. Even corrosive sublimate was powerless in the same proportion—1 to 1,000.

Sulphuretted hydrogen enjoyed a short-lived popularity, only to be discarded. Hydrofluoric acid, that promised so much, failed to hold its own. While now the recognized treatment is plenty of fresh air, well-directed bathing, well-regulated exercise and a good, nutritious diet—this is a line of treatment which is not intended to kill the bacillus, but to render his culture grounds uninhabitable and to put the system in a condition to repair the damage already done.

But there is no disease in regard to which so many plausible antiseptic theories have been advanced as have been put forward for the abortion-cure of typhoid fever. No disease was ever treated with a more varied assortment of drugs—in fact, typhoid-fever patients have been, for centuries, a veritable dumping place for the products of the pharmacy. After the discovery of the bacillus typhosus, and when it was proved to be the exciting cause of enteric fever, there were a great number of drugs reported as almost specifics for the disease. But when it was found that no drug could be exhibited by the mouth that was fatal to the germ without destroying tissue, the experimenters started out on another plan. This was to neutralize the ptomaines that were created in the body by the action of the typhoid germ.

The ptomaine theory is the generally accepted one of to-day, and certainly accounts most scientifically for the adynamia that so often appears in enteric fever and with such fatal results.

Dr. P. F. Henry, in a paper on antiseptic medication, mentions a series of twenty cases, with one death, treated with thymol, in doses of thirty to forty grains daily. These observations are of little definite value on account of the small number of cases; and especially does this hold good in a disease like enteric fever that presents so many varieties and degrees of severity. I may note, too, that all these were hospital cases, surrounded with the best nurses, and fed on a restricted diet that can only be fully carried out in a hospital or under the care of a trained nurse. Let me quote to you some observations of Balz on the danger of thymol in thirty-grain doses or less. "In a few cases nausea and vomiting were caused. There was abundant sweating, ringing in the ears, deafness, constriction in the forehead, reduction of temperature and frequently diarrhœa. The urine was dark-greenish, yellowish-brown by transmitted light. Violent delirium occurred in several cases, also marked collapses, and in one case of enteric fever unconsciousness with most alarming collapse." This shows the danger of thymol in doses of thirty-eight grains daily; and less than that is inefficient as an internal antiseptic, and its tendency to produce diarrhœa, sweating, unconsciousness and collapse are certainly reasons that ought to contra-indicate its use in typhoid fever, a disease in which collapse is especially to be guarded against.

Naphthalin, much vaunted lately for its antiseptic value in typhoid fever, is well known as an irritant to the kidneys and urinary passages, in fact of such severity as to produce strangury in a case cited by Rossbach. This shows that the exhibition of the drug is attended with danger, while the good derived from its use is unproven. It ought to be the aim to avoid the use of any drug in an acute specific fever that has the least irritant action on the kidneys. Let me also protest against the practice of some physicians, who, too often bent on meeting a symptom in an acute febrile disease, exhibit drugs that derange the digestive organs and the kidneys. The stomach begins to rectify itself first in a disease, as shown by the tongue making an attempt to clean itself; and this is always regarded as the first sign of a favorable termination.

Therefore, I say, it is the duty of a physician in presenting a drug that is a known irritant to the stomach, to carefully consider

whether or not it is well to combat a symptom and irritate the stomach.

In the MEDICAL AND SURGICAL REPORTER, Feb. 22, 1890, was reported the reading of a paper on enteric fever, in which Prof. W. H. Thompson laid special stress on the antiseptic treatment of the disease by the administration every three hours of ten grains of pepsin and a like amount of subcarbonate of bismuth, in addition to which he often gives ten minims of dilute muriatic acid at the same intervals.

This treatment is an excellent one; but I see no reason why he should call it antiseptic. It is simply the old-fashioned acid treatment, that has undoubtedly given better results than any other single method of treatment, with a good aid to digestion by the administration of pepsin; while the subcarbonate of bismuth for the control of the diarrhœa has been so often used, and with such good results, as to need no comment. Why Dr. Thompson should call this practically inert, and almost unabsorbable drug antiseptic, is past comprehension.

Allow me to quote a few remarks from Dr. Janeway, in discussing this paper, on a subject in regard to which any physician may go astray. Dr. Janeway said that where an outbreak of typhoid occurred in an institution, he had sometimes found that, while a large number of the inmates were attacked with all the characteristic symptoms of the disease, in a considerable proportion of these the affection ran a very brief and mild course; which, in his opinion, went to show the ability of certain individuals to throw off the disease, even after the usual phenomena accompanying it had made their appearance. There is always danger, he said, that the attending physicians, in such an attack, might regard the disease as having been abated by the treatment employed, while in reality the same results would have been noted if no treatment whatever had been resorted to.

One word about the antiseptic use of carbolic acid in specific fevers. The maximum dose is three grains. In a man weighing one hundred and fifty pounds, ninety pounds are in a liquid state and therefore capable of acting as a dilutent to any drug that can be freely absorbed. If he be given three grains of carbolic acid, the drug is absorbed, permeates all the tissues and forms an antiseptic solution of 1 in 300,000. Even Hahnemann would not object to that dilution, while the germs would grow and wax strong in it.

Dr. H. C. Wood, in his work on *Therapeutics*, states that our physiological knowledge confirms our clinical experience in showing that carbolic acid is of no value in constitutional diseases, and says that it is employed directly in medicine only for its local effects.

The treatment of typhoid fever now most generally recognized is symptomatic and expectant, one that makes no futile attempt to shorten or abort the febrile process, but to keep the emunctories of the body acting properly, treating symptoms as they may arise, and paying especial attention to diet and hygiene.

Dujardin-Beaumetz says: "Whatever parasiticide action antiseptic drugs may be supposed to possess, they must still yield the palm to the modifiers of nutrition which render the organic soil unfit for the habitation of microbes."

But still we have reason to hope and believe that in the near future some remedy will be found that will render the system impervious to the development of microbes, and when this happy era dawns we can, as did the mother of Achilles, bathe our patients—not forgetting the heel—in a solution that will render them invulnerable to the attacks of death's most efficient reapers—micro-organisms.

HERNIA.

BY DAVID S. SMITH, M. D.,

NEWARK, N. J.

Hernial displacements occur in both sexes and at all ages. Scarcely a physician having a large obstetrical practice but would tell you that in his experience he found more cases of hernia under one year than over it. There is quite a difference of opinion as to the age in which hernia is most likely to occur, some contending that it is more frequently met with under thirty-five years of age than over, while others think the percentage greater above, in consequence of a weakening or flabbiness of the abdominal walls, which would seem to be a good and sufficient reason for its more frequent occurrence. In looking for some statistics, which might give some facts as to the ages at which hernial protrusions are first developed, I find in the City of London Truss Society Re-

ports a tabulated statement of 9,296 cases of inguinal and femoral hernia which had passed under the personal examination of Mr. Kingdon, who had taken great pains to get the age when the hernia was first noticed. The result, as reached by him of the 9,296 cases was that 1,516 were under five years of age when the hernia was observed, or about 1 to 6.13. And from the same it is shown that the number of cases developed under thirty-five years of age to be greater than that above, the proportion being 60 to 39. Notwithstanding this statement his conclusions are that hernia is more common relatively to the number of the population above the age of thirty-five than under it, and that 41 per cent. of cases of hernia are developed under the age of thirty-five, and 59 per cent. over it. Another tabulated table of 2,343 cases reported 555 or 23.66 per cent. were under the age of thirty-five, and 1,788 or 76.04 per cent. were over that age. While these tabulated statements differ so widely in their observations both may be correct. My own experience is, that much the larger number of cases occur under the age of thirty-five, and very many of the cases said to have occurred above that existed before. The history of many of the cases which are quite familiar, being thoroughly inquired into, the patient could remember when about the age of twenty-three or near that of noticing a little more fulness in one groin than the other, not sufficiently large to excite his suspicion that there was anything wrong, never giving him any inconvenience, and thought nothing of it until a short time since, when suffering from a cold, he would experience a slight pain in the groin when coughing, with an increased fulness. This has continued to increase until now he feels as though something was being forced through, and the pain is very acute. This is a fair illustration of the greater portion of cases that have passed under my observation above the age of thirty-five, and from my experience I should feel justified in saying that much the larger number of hernial protrusions are developed under this age.

Both sexes are subject to hernial protrusions, occurring much more frequently in the male than in the female. The statistics showing out of a gross total of 96,886 applications for trusses, at the City of London Truss Company, 78,394 were for males and 18,492 for females. This great difference as to the numerical proportion of hernia, as existing in the two sexes, would seem to admit of some doubt and might with some propriety be considered incorrect. The great degree of delicacy existing in the female sex, together with their dislike in presenting their troubles to the physician, as long as they can tolerate them without being obliged to, may in a measure account for this seemingly great numerical difference. My own observations nearly corroborate what I have gathered from statistics. It has been stated by some, after a careful consideration of all the circumstances, that a fair estimate would be that the complaint occurs in two males to every one female. The causes producing hernia are numerous, and many so simple that it would seem impossible for it to occur. A mild sneeze has been known to be sufficient to produce it. Among the many causes producing it are emesis, coughing, or any great physical exertion, such as athletics, lifting heavy weights, etc. Many other causes might be enumerated. Sometimes the parietes of the abdomen may become weakened from abscesses, inflammatory lesions, or injuries, and give rise to the protrusion of a hernial sac. Not among the least is it inheritance from parents who have been thus afflicted. It is stated on good authority that hernia arising from hereditary predisposition forms about twelve per cent. of the whole number of cases in the first twelve months of life. This predisposition after being thoroughly investigated is attributable to two causes: first, to the arrested efforts of nature, in closing the ventral orifice of the vaginal process of the peritoneum, and the obliteration of that sheath; and, secondly, to an abnormal elongation of the mesentery. These conditions are generally found to exist where there is a hereditary predisposition to hernia.

The symptoms of hernia are a feeling of weakness, frequently accompanied with slight pain, or an uneasy disturbed feeling where it occurs, with a fulness or swelling at that point, readily disappearing upon slight pressure of the fingers, or a recumbent posture; and is readily reproduced by assuming an erect position, by contraction of the abdominal muscles, or by coughing. Oftentimes people will pursue their daily routine of business while having this malady, and when told of its existence express great surprise and astonishment, thinking it impossible, as they have never experienced any trouble in those parts. I never knew a better exemplification of this coincidence than

in the examination of men drafted by the army, those subject to draft, and also those offering themselves for substitutes during the rebellion.

The different forms of hernia, which we are most frequently called upon to treat, are classified as reducible, irreducible, and strangulated. The radical cure of hernia has received a large amount of attention, and various methods have been resorted to with that end in view, with varied success. In the treatment of reducible hernia, palliative measures are generally resorted to, and frequently the results obtained by such means are more satifactory than by more heroic ones. In treating umbilical hernia of infants I have invariably been successful with adhesive plaster, in the place of lead, cork, or any solid substance used for that purpose. After reducing the hernia I close the opening with three or four strips of adhesive plaster, allowing these to remain in place for five or six days, after which I renew it, and continue in this manner for about two months, at which time a perfect closure of the ring will have taken place.

I find among the many methods formerly employed to effect a radical cure of hernia, that of ligating the neck of the sac; incision of the sac, and subsequent healing by granulation; excision, suture, and scarification of the sac; detaching the sac from its connections, and returning it into the abdomen; forcible compression of the sac by bandages; cauterization of the orifice and neck of the sac; tincture of iodine used as a stimulating injection to excite inflammation, thereby producing adhesion of the canal. A rather unique and successful case was that practiced by a medical student upon himself and recorded by Dr. T. C. Hunter in the *American Journal of the Medical Sciences*, January, 1878, which consisted in using the testicle as a plug for the hernial canal. Most of these methods have been abandoned, unless it may be that of using stimulating injections, which were revived by Heaton and Davenport of Boston, they using the fluid extract of quercus alba for that purpose. Another method which has gained some notoriety is the invagination of the hernial sac, pushing up the fundus of the sac into its mouth, and retaining it there until adhesions have formed sufficiently to obliterate the ventral orifice of the sac. Of the many different methods of cure which I have mentioned, I have been unable to procure any data which would give the proportion of cures and failures.

Were it possible to obtain the number of cures effected by the wearing of a well-adjusted truss, which is one of the palliative measures in the treatment of hernia, I think we would find the cures largely in excess of all the other methods combined. The only effectual manner in which the radical cure of hernia can be accomplished is the permanent obliteration of the sac, and closure of the ventral orifice. The treatment of irreducible hernia is palliative entirely, owing to its adhesive connections. The well adjusted truss being different from that for reducible hernia in this wise: that the pad is hollowed out, as not to press upon the hernia but to give additional support to its circumscribed border. Hernia is said to be strangulated when constriction occurs, which impedes and arrests the circulation of blood in its capillary blood-vessels. The first symptom of strangulated hernia is vomiting, frequently accompanied with pain in the stomach. The pulse in the first stages is seldom affected; as vomiting continues the heart's action becomes more rapid, the pulse contracted and weaker. The character of the vomit at first partakes of bile, mingled with the food last eaten partially digested; this soon changes to a yellowish character tinged with a greenish cast, and if not relieved becomes stercoraceous.

I know of nothing that excites more anxiety in the medical attendant than failure after repeated efforts to reduce a strangulated hernia; or a more pleasing sound than the peculiar snap when he succeeds. The physician is seldom called until four, six and twelve hours have elapsed since the first symptoms of strangulation were manifested. The physician's inquiries regarding the patient's condition, usually elicits the statement that he is suffering from a bad attack of biliousness; that he has been bilious for some time, and shortly after getting up that morning he felt a pain in his stomach, and shortly after vomiting commenced and has continued all day. Some physicians accept this statement and prescribe accordingly. I can recall a case of this kind which came under my observation some twelve years ago. A woman residing in South Orange township, sixty years old, retired after a hard day's work and was taken sick with vomiting. This was Thursday night. Their family physician in Newark was called Friday morning. He accepted

the patient's statement, which was similar to the above, and prescribed for biliousness. On Saturday he visited her again and found her no better. On Sunday the case was so alarming that the family desired a consultation; the consultation was held about 5 P. M. and strangulated hernia was found to be the cause of biliousness. I was sent for about two hours later to assist in operating. The sac was found badly discolored, and when opened the intestine was found to be rotten; death ensued about four o'clock Monday morning. No physician has any business to leave the bedside of a patient under such circumstances until he is satisfied that no strangulated hernia exists to produce such symptoms, and no intelligent one would. The treatment of strangulated hernia consists of two methods, that of reducing it by taxis, or an operation.

Two important questions are presented at this point: How long to continue taxis, and when the opportune time to operate. My practice is this: placing the patient in the most favorable position with the muscles of the abdomen well relaxed, and if the parts are not too tender and painful, try taxis for fifteen or twenty minutes; if unable to reduce the hernia wait a short time and try again. If no success attends the second effort, I then chloroform the patient, and after making satisfactory efforts am still unable to reduce the hernia I send for some brother physician to assist me; and if our united efforts avail nothing, I then decide on an operation without waiting any longer. I never heard of a fatal case of hernia resulting from too early an operation, but frequently from several by delay. I have great confidence in the hypodermic use of morphine, where taxis has failed. Its peculiar action in these cases I am unable to explain scientifically, unless it produce a more profound relaxation of the stricture and at the same time a contraction of the mucous membrane of the bowel, reversing its peristalic motion as it were, and by a species of endosmotic action the bowel is withdrawn. This is my theory, whether an erroneous one I am unable to decide. I have been successful in four cases after an operation had been decided upon in each case. One was that of a laboring man in South Orange township, fifty-five years old; he was taken sick with vomiting at noon and I was called at eleven P. M. On examining him I found a scrotal hernia distending the scrotum to its full extent, and as I remember it, about the size of a wooden quart-measure. I made several efforts at reduction and failed. It seemed from the flabby and lax condition of the abdominal walls there was no good reason why it should not easily be returned. I informed his employer I was unable to reduce it, and would like to have assistance. Dr. Pierson, of Orange, was sent for and arrived at about three o'clock; our united efforts availed nothing, and Dr. Pierson advised his being sent to St. Michael's Hospital in the morning and undergo an operation. This course was decided upon and Dr. Pierson left. After his leaving I administered a hypodermic injection of morphine, using about the third of a grain, and waited for the conveyance to return for me. Before leaving I went upstairs to see the patient and found him fast asleep. I felt for the hernia and found it gone. I awoke him and asked him how he felt. After his becoming fully awake he felt for the hernia, and replied he had just put his rupture back. This result I attributed to the action of morphine, and where one and a half hours' delay would make no material difference I should advise its use.

A CASE OF QUADRUPLETS.

REPORTED BY A. W. STRICKLER, M. D.,
SCOTTDALE, PA.

The following are the particulars of a case which occurred in a little village about a mile from here. The case occurred in the practice of my friend Dr. A. J. Rogers, of this town, to whom I am indebted for this information.

Dr. Rogers was called shortly before 8 P. M. on Feb. 12, to see Mrs. Newton, the wife of a coal miner. He reached her bedside in a short time and found that the woman had been in labor for about two hours. The labor progressed normally and rapidly; and by 10 P. M. there were born to the mother four, well-formed, living girl babies; weighing about five or six pounds each. (They were not weighed.)

There were four amniotic sacs which ruptured separately before each birth. The cords were inserted separately into what seemed to be one placenta, but which was composed of four divisions or lobes.

The uterus did not contract well, and there was a rather profuse hemorrhage which lasted

for an hour or two, but which was controlled by the use of ergot and external pressure.

The mother made an uninterrupted recovery. The children are all living and thriving at this date (June 5). They were christened in the Roman Catholic Church in Scottdale, by Father Lambing, on May 1.

Mrs. Newton, the mother, is a medium-sized woman thirty-four years old; her husband is about the same age. They both are Irish and have lived eight years in this country. They are the parents of eight other children, all single births.

FRACTURE OF THE SKULL TREPHINED FORTY-THREE YEARS AFTER THE INJURY.

BY JOHN M. CURRIER, M. D.,
NEWPORT, VERMONT.

W. G. B., sixty-seven years old, was engaged in butchering hogs forty-three years ago. While he was pulling a hog from the scalding-tub, the hook gave way, letting the man fall backwards and striking his head against the corner of a post. He was immediately taken to his home and remained several days in a partially comatose condition, alternating with delirium. There was heat and swelling about the occipital region. The physicians came to the conclusion that there was no fracture of the skull; but for nearly one year headache, delirium and loss of memory were prominent symptoms. These gradually wore away, in a great measure, excepting occasionally when the headaches would be intense. For the past forty-two years the man has had spells of despondency, when he would be unable to collect his thoughts, and has also been unable to sleep at night.

December 26, 1889, I was called to see him. He complained of headache, of his food hurting him and was unable to think. His pulse was 40 per minute, full and strong; his extremities were cool and somewhat emaciated; his head was hot. He had had a great deal of headache and had frequently resorted to Dover's powder for relief. His wife stated that he would often talk queerly and was irritable. I put him on a mild, nutritious diet, with alterative doses of protiodide of mercury, and recommended that he be kept free from all excitement. The symptoms became aggravated, and on January 23, he made an attempt to cut his throat with a pocket knife; but his wife interfered and he escaped with only a severing of the left external jugular vein. He lost about thirty ounces of blood, but soon recovered. His appetite was good and he was able to eat food better than for several weeks. He acknowledged that various modes of suicide had been contemplated by him and, on many occasions, for many years past, but he had really never worked his courage up to the deed.

About February 15, 1890, all the symptoms became aggravated; he was more delirious and required two or three attendants to restrain him. It required enormous doses of morphine and chloral to produce sleep and quiet. He refused food and medicine. He became extremely emaciated.

On February 26, Dr. C. L. Erwin, of Newport Center, was called in consultation. Trephining the skull at the old scar was decided upon as the only hope. Here I will state that after the head had healed, forty-two years ago, a distinct depression of the skull was observable in the left portion of the occipital bone immediately below the lamdoidal suture.

On February 27, the patient was etherized; the scalp was laid open, and a button of bone, one inch in diameter, was taken out. The bone removed included the deepest portion of the depression. The corresponding part of the under surface was very strongly attached to the dura mater, and the depressed portion had been absorbed away in a great measure. From this time on, the patient became more quiet; the symptoms were relieved. The wound healed quickly. On April 25, the patient was eating well, had gained in flesh, was sleeping soundly all night without anodynes or hypnotics and did not complain of headache.

Two months later (June 9) the patient was still improving, was able to work every day and was gaining in every respect.

—According to the Lyon *Medical* the inquiry made by the Administration, in order to carry out the new law giving certain advantages to fathers of more than seven children, has shown that in France at present there are 2,000,000 households in which there has been no child; 2,500,000 in which there was one; 2,300,000, two children; 1,500,000, three; about 1,000,000, four; 550,000, five; 330,000, six, and 200,000, seven or more.

Foreign Correspondence.

LONDON LETTER.

London, May, 1890.

Discrimination against Scotch and Irish Medical Degrees.—Suspicion of Use of Horse-flesh in Beef Essence.—Costly Drugs and Foods in Charities.—British Medical Association.—Lead-Poisoning.—Effect of Imagination in Therapeutics.

Attention has been called to an old standing grievance by the action of the Board of Governors of the Bristol General Hospital. At a late meeting the rule was confirmed that members of the staff must hold an English qualification. This amounts to a practical boycotting of the Irish and Scotch diplomates. The medical papers have taken up the matter warmly. The *Lancet* says that the obvious inferences are, that it would be derogatory to the status of the staff to have a colleague holding only a Scotch or Irish fellowship; second, that the examination tests of those colleges are not equal to those of the London corporations; further, that the reason for holding the provincial qualification is incapacity to obtain the other. Such imputations can hardly be allowed to pass unnoticed by the bodies interested. This invitation for an inquiry the *Medical Press and Circular* cordially echoes, and the *British Medical Journal* takes a similar view of the case. The whole matter requires overhauling from beginning to end. It is agreed on most hands that high standard examinations do not by any means invariably turn out the best men; and the theory has been seriously advanced that there should be one qualification only for all medical men. Notwithstanding this attempt to oust the provinces, yet it is interesting to note that Scotch and Irish graduates are found in the first ranks of State and hospital appointments, of Court and of special practices. It is worthy of note, too, that antiseptic surgery, along with the use of chloroform and other useful discoveries, hail from north of the Tweed.

A good business is done nowadays in meat essences of various kinds. Liebig's extract held the market for very many years, but there are now a round dozen of widely-advertised competitors, each claiming special advantages as regards digestibility and nutriment. Some while back the newspapers took up the cry that many of the extracts were made from horse-flesh. It has been proved beyond a doubt that a number of worn-out horses are constantly being sent out of England. Of these, it is asserted, the best parts are sent back dressed as beef, a lot more is returned in the guise of sausages, while the rest is made into extract. The trade, however, does not seem to have suffered much by this imputation, which the journalists describe racily as "the traffic in deceased gee-gees."

In a certain palatial workhouse infirmary, bovril is used largely, as well as Valentine's extract. It is curious to reflect on the costly medicines and comforts bestowed on the inmates of some of these places. Nor is there much difference in outside practice in this respect.

The writer has recorded a rare instance of poisoning occurring in dispensary practice. The patient, suffering from advanced phthisis, was in an abject state of poverty. He attempted suicide by swallowing at a draught a bottleful of cough linctus supplied by the charity. The linctus contained codeia, a most expensive alkaloid. It certainly seems a somewhat curious policy to ply the victims of sordid poverty with costly drugs, the medicinal value of which is, in many cases, both tentative and doubtful.

The British Medical Association has reached the respectable, if not altogether venerable, age of fifty-eight years. The exact days of the Birmingham meeting will be from July 29 to August 1. Mr. C. G. Wheelhouse, of Leeds, is the President. Notwithstanding the late secessions, there is every prospect of even more than the usual success. A number of distinguished visitors are expected, including many from America. Each meeting has hitherto brought in a large additional number of recruits, and this has been markedly the case with the "hardware capital," where medical men are both numerous and advanced in their ideas. One great feature of the forthcoming meeting will be consideration of the abuse of hospitals and the relation generally of charities to the public and the profession. Section work is divided under twelve headings, each with a president, vice-presidents and secretaries. In the case of the Dermatology section, three mornings are devoted to the discussion of more or less popular subjects, namely, alopecia areata, vaccination rashes and the treatment of eczema; the last mentioned being introduced by Professor Unna, of Hamburg. The rest of the

time of the section will be devoted to the reading and discussion of independent papers, dealing with its specialty.

A great deal remains to be discovered anent lead-poisoning. The subtile nature of the poison, its far-reaching effects and the universal nature of its domestic distribution surrounds the investigation of plumbism with many difficulties. For a long time past there have been constant contributions to its ever-increasing literature. The British Association, the medical journals, the learned societies and the researches of authorities in public health have been brought to bear upon the matter from time to time. A prize was offered last January by the Edinburgh College of Physicians for the best essay on the nature and prophylaxis of lead-poisoning. There can be no doubt that a goodly number of cures of obscure disease, more especially of the nervous system, may be justly attributed to this cause. Meanwhile, little attention seems to have been given to the constant medicinal uses of lead. It can hardly fail to have some evil effects, considering the indiscriminate way it is used in therapeutics, in the form of pill, lotion, plaster and ointment.

An amusing instance of what virtue there is in a little faith has lately come under my notice. A hospital physician lately wrote on a patient's board that he was to take five drops of pure terebene three time daily "on a little bread." Whether from a bad pen, from hurried writing, or from defective eyesight, the nurse misread these directions and carefully anointed her charge's *head* with the unguent every four hours. The patient expressed himself as wonderfully benefited by the application, and was allowed to recover under its influence, when the mistake was at length discovered. This little incident is sketched from life and may well be commended to the notice of the disciples of that modern therapeutic mystery, hypnotism.

D. W.

—A snake story current throughout British India is thus summed up in an article on "The Naja-Kallu, or Cobra Stone," by Prof. Hensoldt, of Columbia College, New York, in the March number of *Harper's Magazine:* "Some cobras," he says, "perhaps one in twenty—are in possession of a precious stone which shines in the dark. This stone the snake is in the habit of carrying about in its mouth, regarding it as a treasure, which it carefully preserves and defends with its life. At night the cobra deposits the stone in the grass and watches it for hours and is never more dangerous than when occupied in this manner."

PERISCOPE.

Repeal of Preliminary Education Bill in New York.

The following from the pen of a distinguished member of another profession, Hon. St. Clair McKelway, recently a guest of the New York State Medical Society at Albany and then, as on other occasions, an outspoken advocate of higher medicine, deserves the serious consideration of every member of the profession of medicine in the United States, especially on the eve of the annual meeting of its greatest representative body, the American Medical Association, which may well make it its business to inquire how far the allegation is true that medical schools are themselves the instigators of the repeal of the Act requiring the examination of intending medical students as to their fitness to undertake the study of a profound science like medicine, before that Act has been a year in force.

A bill has lately passed the State Senate to repeal the Act of July 13, 1889, requiring intending medical students, in advance of their entrance upon their medical studies, to undergo the examination in academic studies conducted by the State Board of Regents. Without such a law there would be few or no restrictions upon any one becoming or trying to become a physician. All that would be necessary would be attendance upon a lecturing course or two and the securing of a diploma of graduation from medical colleges, which have a money interest in fees in corraling and passing as many students as possible. The law which it is proposed to repeal requires a fair degree of elementary knowledge of intending medical students. It creates a standard for entrance into the studies of the profession, and it bars from entrance into the profession such as cannot conform to the standard. It is a partial protection of the public from medical ignorance, graduated incompetency and licensed quackery. The motive was undoubtedly excellent. In actual operation for less than a year, the law has certainly produced no results to bring it into condemnation, and has probably not produced a sufficient number of results to determine its full capacity for good. Less than a year is too short a time for an experiment in statutes to be summed favorably or unfavorably. It

should have a longer life to enable final judgment intelligently to be passed upon it. Any allegation, therefore, that the law has been a failure, or that it has yet been a great success, would be unfounded because premature.

No one, however, need be at a loss to explain why a bill repealing it has passed the Senate. The law interferes with the revenues of the fee schools, ambitiously known as medical colleges. It tends to check the number of ignorant and incompetent persons who desire to become or be called doctors. It correspondingly threatens the loss of tuition and graduation fees to such fee schools. It creates in them an interest for the repeal of the law, irrespective of the benefit which an improved standard of knowledge and culture among students for medical degrees would confer upon the community. A banded pecuniary interest, directly contrary to the safety and welfare of society, and moved in the name of the schools of a profession which insists on being called a learned profession, has thus been able to carry a repeal of this measure through the Senate of the State and to send the repeal bill to the State Assembly.

The repeal bill is the first step backward which the State of New York or any other State has ever taken in any reform which had been once established, whether Civil Service Reform, Prison Reform, Charities Reform, Ballot Reform, Canal Reform, Labor Reform or any other reform of a public character. Should the Assembly and the Governor concur in the repeal of this measure of medical educational reform, the instance would be as exceptional as it would be signal in the history of remedical legislation in the history of any civilized or presumably civilized government of men upon the face of the earth. It is hard to believe that the repeal bill can pass the Assembly. The attention of the enlightened press has been directed to the action of the State Senate. The comments of such press have been deservedly severe and alarming. Even if the Assembly should pass the measure, the Governor could hardly, with consistency, sign the repeal bill, because he himself signed the law of which the repeal is thus sought. The progress or the arrest of the progress of this reactionary bit of legislation will be watched with much interest by the enlightened citizens of New York.—*Journal of American Medical Association*, April 12, 1890.

Bloodless Amputation at the Hip-Joint.

At a meeting of the New York Academy of Medicine, held April 14, 1890, and reported in the *New York Medical Journal*, May 10, 1890, Dr. John A. Wyeth presented two patients to the Society, upon whom he had done an amputation at the hip-joint for sarcoma of the thigh, and also read a paper on this operation as devised and carried out by him.

It is well known that the high death-rate after hip-joint amputation is chiefly due to hemorrhage. Compression of the aorta or common or external iliac has not rendered the operation less dangerous. The figure-of-eight elastic bandage of Esmarch carried above the crests of the ilium or around the abdomen, and the transfixion with a single needle passed in front of the neck of the femur and beneath the vessels, over the ends of which a rubber cord is carried only in front of the thigh, as advised by Trendelenburg, are improvements on older methods, but are far from satisfactory.

The operation is described by Dr. Wyeth as follows:

The patient being placed in position, with the hip of the side to be operated on well over the corner of the table, the foot is elevated and an Esmarch bandage applied to drive the contained blood towards the heart. The bandage should not be tightly put on over the seat of the disease for fear of driving septic matter into the circulation. With the rubber bandage still in position, the needles are next introduced.

Two steel mattress-needles, three-sixteenths of an inch in diameter and a foot long, are used. The point of one is inserted an inch and a half below the anterior superior spine of the ilium and slightly to the inner side of this prominence, and is made to traverse the muscles and deep fascia, passing about half way between the great trochanter and the iliac spine, external to the neck of the femur and through the substance of the tensor vaginæ femoris, coming out just back of the trochanter. About four inches of the needle should be concealed by the tissues.

The point of the second needle is entered an inch below the level of the crotch internally to the saphenous opening, and, passing through the adductors, comes out about an inch and a half in front of the tuber ischii. No vessels are endangered by these

needles. The points are protected by corks to prevent injury to the operator's hands.

A piece of strong white rubber tube half an inch in diameter and long enough, when tightened in position, to go five or six times around the thigh, is now wound very tight around and above the fixation needles and tied.

The Esmarch bandage is removed and five inches below the tourquinet a circular incision is made, and a cuff which includes the subcutaneous tissues down to the deep fascia is dissected off to the level of the lesser trochanter, at which level the muscles and vessels are divided squarely and the bone sawed through. All vessels (including the veins) which can be seen are tied with catgut and the smaller bleeding points can be discovered by slightly loosening the tourquinet.

The remaining portion of the femur is now easily removed by dividing the attached muscles close to the bone and opening the capsule as soon as it is reached. On lifting the end of the bone in the direction of the patient's navel and dividing the cotyloid ligament posteriorly, the air enters the cavity of the acetabulum and greatly facilitates the division of the ligamentum teres.

The closure of the wound, with proper drainage, follows. The entire procedure requires the strict asepsis of modern surgery.

One other important point I wish to emphasize—viz., the advisability in certain cases of doing this operation in two sittings.

In one of my cases the patient was greatly exhausted, and after dividing the femur at the lesser trochanter and securing the vessels, fearing the supervention of shock as indicated by the pulse, I closed the wound, which healed by first intention. At the first dressing (on the seventeenth day), the remaining portion of the bone was removed by an incision over the trochanter major. The recovery was uninterrupted.

I should prefer to complete the operation at one sitting, but cases will occur where the danger of shock may be obviated by stopping short of enucleation, leaving this for a week or two, when reaction and convalescence are assured.

In neither of my cases was there any bleeding, and in two additional operations by this method, very recently performed by two distinguished surgeons of this city, there was perfect immunity from hemorrhage. In fact, amputation at the hip-joint is now a bloodless operation.

Hypnotism.

While it has been generally admitted that subjects who have been frequently hypnotized lose the power of resisting the customary manipulations of the operator, or, in other words, that the natural suggestion of going to sleep at the sight of the operator and his proceedings is stronger than the auto-suggestion not to yield (just as we may fall asleep, in spite of all effort, at a lecture or social gathering), yet great stress has been laid upon the original consent of the subject to submit to the operation, as well as upon a considerable power of resistance by sheer determination. Dr. Herrero, a Spanish writer on the subject, has recently announced a means of hypnotizing anybody and everybody, *nolens volens*.

A great number of those classed as non-hypnotizable will succumb, says this authority, if the process be maintained for a sufficient length of time. As this is very trying to the operator, a device may be resorted to by which the subject is forced to gaze continuously at a bright object, the operator reenforcing the suggestion to sleep. If, however, the subject resist the proceedings, one may bind him, and force him to assume the position necessary for hypnotization. But this drastic process may be dispensed with; for in those cases in which it is necessary, for therapeutic or correctional purposes, to hypnotize a person, Dr. Herrero has another method. It is based upon the discovery that in light chloroformization there is a stage in which the subject obeys suggestions as readily as in hypnotism. This period may at first be brief, but may be prolonged by care and practice. While in this "chloroformic somnambulism," the suggestion is given that in future no such agency will be necessary to hypnotize the subject, in some the suggestion is made gradually that they will resist less and less; and so on. While this disposes of those unconsciously resisting hypnotization, does it apply to those opposing it voluntarily? Here is a case in point. A patient showed a morbid fear of hypnotism, regarding it as a satanic art, and absolutely refusing to be hypnotized. It had been attempted over and over again, but in vain. Chloroformization was proposed, to which she consented. The first day it required fifteen grammes to bring on the susceptible period, then thirteen and so on until the patient went to sleep by merely staring at the doctor's fingers, and became a good

hypnotic subject. By this means, then, it is proposed to induce a state by the action of drugs from which the transition is easy and certain to ordinary hypnotism. It seems probable that there will be much discussion and experimentation in this novel mode of extending the powers of hypnotism.

By auto-hypnotism is meant the power to put one's self to sleep. We do this every night, and persons differ very markedly in the ease and rapidity with which they fall asleep both at night and at other times. Dr. Coste de Lagrave has developed this power to a considerable extent, making himself at once operator and subject in an hypnotic experiment. The best time to experiment is just after awakening. One then attempts to go to sleep again for a short time only. One may wake and go to sleep again three or even five times in an hour. The sleep is light, may be accompanied by dreams, and the sleeper be sub-consciously aware of his condition. When the sleep is still lighter, and self-consciousness is largely present, the auto-hypnotic state has appeared. Dreams may occur, though the dreamer is perfectly conscious that he is dreaming, and may even attempt to direct these dreams. This amounts to auto-suggestion. To enter this state, the author lies down, closes his eyes, tries to sleep, keeping his thoughts fixed on the desired auto-suggestion. Here are a few instances of his success. As the result of a dysentery contracted in Tonkin, he could not walk a mile without extreme fatigue. One evening he gave himself the suggestion not to become tired, and the following day he was able to take a long walk. He suggests good appetite, and suggests away dyspepsia and cold feet, even under the most trying circumstances, such as in the open air on a cold day, and finds that his feet are really warm to the touch. Hallucinations are thus excited. He writes, talks interestingly, all by auto-suggestion. But the process is not without its disadvantages. Fatigue, depression, and sometimes severe headache, are the results. Like all phases of hypnotism, it has its uses and abuses. While this power is thus unusually developed in the cases cited, it undoubtedly exists to a lesser degree in many; and it would not be difficult to find in the habits of all a close analogy to what is here termed "auto-suggestion."

The name of retro-active hallucinations has been given by Dr. Bernheim to hallucinations suggested back into the experience of the hypnotized subject. He is told that so many days or weeks ago he was a witness of such and such an act. The suggestion is accepted, perhaps additional details are added, and the fictitious event is embodied with the ordinary experiences of life. The case to be here noted is interesting, on account of influencing several at once, some without direct personal suggestion, and on account of being accepted by a person who happened to be sleeping normally. In one of the wards of the hospital, Dr. Bernheim hypnotized eleven patients while one was sleeping normally. He tells one of his subjects, "You see No. 3 seated on a chair. Yesterday he came back intoxicated, sang and shouted through the halls, struck the keeper, making his nose bleed. You were there." The illusion soon developed; and the subject repeated the whole story, adding that a nurse came with a basin of water to wash off the blood. A neighboring subject was then aroused, and asked what happened yesterday to No. 3. After some hesitation, he repeated the story. And so on with all the others, including one who was sleeping naturally. No. 3 himself admitted that he struck the keeper, but he did not begin the quarrel. None of these patients had ever assisted at such an experiment before. The experiment may not succeed at all times and with all subjects; but it shows, that, when the sleeper has his attention fixed upon the person who is speaking, he hears and accepts everything. On awakening, he does not recall this of his own accord; but, as soon as a hint is given, he recalls it all, and accepts it as a reality. As a practical outcome of the observation, Dr. Bernheim gives the warning not to tell secrets in the presence of a sleeper.—*Science*, Feb. 28, 1890.

Chilblain Lotion.

A Tōkyō medical practitioner speaks highly of the usefulness of the following lotion for chilblains in the *Chemist and Druggist*, May 3, 1890:

℞	Caustic potash	8 grains
	Glycerin	½ fluid ounce.
	Rectified spirit	6 fluid drachms
	Water to	3 fluid ounces

After bathing the hands in warm water, rub them with the lotion. This should be done two or three times a day.

Simple Method for Estimating Urea.

Mr. C. W. Heaton and Mr. S. A. Vasey, of Charing Cross Hospital, describes in the *Lancet*, May 10, 1890, an ingenious and simple method of estimating the quantity of urea in urine. Several years ago, they say, it was suggested to them by some of their former pupils that it would be convenient if a system could be devised by which urea could be estimated easily, rapidly and accurately without specially constructed apparatus. The hypobromite method gives results which are quite correct enough for clinical purposes, and several forms of apparatus of great convenience and simplicity have been devised for its execution. The latest and perhaps the simplest is that of Doremus, recently advocated by Dr. Cruise, of Dublin, in the *Lancet*, March 22, 1890:

There is no difficulty in using any of the instruments which have been recommended, and it is probable that physicians will prefer to employ some one of them when it is accessible. But such instruments are not always accessible, and are easily broken; and it is in any case desirable that the medical practitioner who chances to have no apparatus at his command except the ordinary weights and measures of pharmacy shall be able, without trouble or loss of time, to make satisfactory estimations of urea. In the system arranged by us in 1884, and now for the first time described in print, absolute accuracy is not aimed at, but the maximum error of calculation is so minute as to be quite lost in the greater errors due to variations of temperature and pressure, and to imperfect measurement which are incidental to any rapid process which depends on the measurement of the nitrogen and expelled by alkaline hypobromite. It is well known that this nitrogen amounts approximately to 92 per cent. of the total nitrogen of urea. The apparatus required is of the simplest character. In addition to the ordinary pharmaceutical measures, all that is really necessary is a thistle-headed acid funnel, about one foot of glass tubing and a couple of bottles. It is well to assume that no other appliances are available. The reagents are bromine and caustic soda.

The following arrangements are made:—1. An eight-ounce bottle of any form is fitted with a thistle-funnel and bent glass delivery tube, as though for the preparation of hydrogen. The lower end of the funnel should be bent upwards, like a small hook, to prevent gas from passing up it. 2. A small basin or breakfast cup may be used as a pneumatic trough, a four-ounce, or larger, bottle of any form being filled with water and inverted in it in such a manner that the end of the gas delivery tube can readily be brought under the mouth of the bottle. 3. A 40 per cent. solution of good commercial caustic soda is prepared. For example, half a pound avoirdupois of soda may be dissolved in water and when cold diluted to one pint.

The analytical process is as follows:—1. Into the gas generator is poured by means of the funnel one fluid drachm of bromine washed in by ten fluid drachms of the soda solution. The generator may then be immersed in cold water, and the inverted bottle of water placed over the end of the delivery tube. 2. Two fluid drachms of urine, very carefully measured, are added and washed in by exactly one fluid drachm of water. The three fluid drachms so added will of course cause an equal volume of air to pass into the receiving bottle. This is allowed for in the appended table. The generator is gently shaken; brisk effervescence takes place, and gas equal in volume to the liberated nitrogen is collected in the receiver. The generator should be kept as nearly as possible at the temperature of the air. 3. When the evolution of gas ceases, the receiver is removed from the basin by means of the thumb or a glass plate and placed mouth upwards on the table. It is now only necessary to measure in minims the quantity of water required to fill it. After deducting 180 (which may be taken as 200) minims due to the air displaced by the urine, each 100 minims of water added represent 0.25 per cent. of urea in the urine examined. If the urine contains more than 3 per cent. of urea, it is best to dilute it with an equal volume of water before making the determination.

The following table gives the percentage of urea corresponding to the volume of gas liberated, as shown by the quantity of water required to fill the bottle:

Minims of water required.	Percentage of urea.	Minims of water required.	Percentage of urea.
200	0.00	900	1.75
300	0.25	1,000	2.00
400	0.50	1,100	2.25
500	0.75	1,200	2.50
600	1.00	1,300	2.75
700	1.25	1,400	3.00
800	1.50		

Use of Air in the Examination of Cavities and Canals.

Dr. Franz Heuel, Jr., describes, in the *New York Medical Journal*, Feb. 22, 1890, a new urethral speculum, by means of which not merely the very limited "funnel-shaped" view is obtained, but, with the aid of air, the urethra is inflated and a very extensive field of vision secured. The speculum is made of rubber, glass, or metal, shaped like a truncated cone, with the end cut obliquely to facilitate its introduction into the urethra without the aid of a stylet. At the other or proximal end is a flange, which is useful in separating the cover from the speculum. Into this proximal end is closely fitted the removable cover, having a transparent glass crystal, fitted air-tight, and an attachment for a rubber tube with bulb for forcing atmospheric air into the endoscope. To prevent the glare of reflected light, the glass crystal is placed at an obtuse angle to the line of vision, and the inside of the instrument is blackened.

In using this instrument the flaccid penis is grasped between the ring and middle fingers of the left hand, the lips of the meatus being opened with the index finger and thumb of the same hand. The endoscope can now be readily introduced into the urethra by means of the oblique end until the thicker portion of the speculum fills the opening. Air is now forced in by the rubber bulb in the hands of the surgeon or patient until the requisite distension of the urethral canal is obtained. In case there should be too much distension, the air may be allowed to escape from the meatus at the side of the speculum by slightly withdrawing it. The entire canal to the neck of the bladder can thus be exposed and examined by the aid of reflected sun, gas, or electric light from a mirror on the forehead or in the hands of the surgeon. The air-pressure may be increased or diminished at pleasure while noting the effects upon the mucous membrane and studying every detail of its surface. By exercising a little care, no violence need be done to the delicate mucous membrane.

By the employment of this endoscope the openings of the lacunæ, a drop of mucus or gleety discharge, the innumerable small blood-vessels, tumors, strictures, false passages, granulations, ulcerations, etc., may all be recognized and their characters and situations noted. Fragments of impacted or loose stone and foreign bodies may be dislodged without the aid of a forceps by distending the canal with air and using gravity to propel the substance towards the meatus, where it may readily be seized and removed.

For the deeper portion of the urethra, especially in a flaccid penis, a longer speculum is more useful, as it straightens out the canal and exposes the lower portion to the rays of light transmitted from the mirror. Without using a tube long enough to pass beyond the bladder neck, there is no possibility of forcing air into the ordinary bladder, as it will meet with very strong resistance from the compressor urethræ muscle.

Tightly wedging the meatus with the short urethroscope and using the greatest amount of air-pressure obtainable from the rubber bulb would either rupture the urethra or force the air out at the meatus by the side of the instrument. It is therefore advisable to hold the speculum lightly engaged in the meatus, and use only the requisite amount of air-pressure, which is very little, to thoroughly dilate the canal. This Dr. Heuel has found in the majority of cases is not disturbing to the sensations of the patient, but is rather agreeable, so that cocaine anæsthesia becomes superfluous. Should the urethra contain much moisture from the presence of a discharge which is liable to cloud the glass-cover, Dr. Heuel coats the inside surface of the glass with a thin film of glycerine previous to the introduction of the speculum. This effectually prevents clouding of the glass without in any way obscuring the view.

The instrument is now being adapted, by Dr. Heuel, to employment in the rectum, œsophagus and stomach.

Herpes Zoster.

The *Quarterly Therapeutic Review*, Jan. 1, 1890, quotes the opinions of various physicians on the treatment of herpes zoster as follows:—Dr. Hingston Fox writes: Careful dressing with ung. zinci or calaminæ generally answers well in herpes zoster. In a severe case a powder composed of zinci oxidi one part, cretæ præp. three parts, well dusted on at night proved very comforting.

Surgeon Denham Franklin writes: I would recommend "Shingles" to try the effect of a paste composed of zinc oxide and lime-

water. The part should then be covered over with cotton-wool, kept on by means of a flannel bandage, as recommended by Erasmus Wilson. Should much pain accompany the attack I have found that instantaneous relief is procured by the application of a five per cent. solution of cocaine. The effect is only temporary, but the application can be repeated.

E. M. Sympson writes: In answer to "Shingles," the best local application to the vesicles in herpes zoster is flexile collodion. This quickly shrivels them up, and I fancy prevents the appearance of any where it has been painted on. I feel sure he will not be disappointed with it.

Dr. C. R. Illingworth writes in the *British Medical Journal:* I have found the following ointment answer well in all herpetic eruptions:

R	Zinc ointment	ʒvj
	Glycerine of borax	ʒij
	Pure carbolic acid	fʒ½

Mix and apply frequently.

In herpes labialis, due to catarrh and respiratory disorders, I omit the carbolic acid, and thus get a bland, enamel-like ointment, of great service in any inflammatory or ulcerative skin affection, eczema, pruritus ani, acne rosacea, etc.

In answer to a question propounded in a German dermatological journal as to the best method of cutting short herpes zoster—if indeed such a method really exists—Dr. Unna, of Hamburg, remarks that we must consider the treatment under two heads: firstly, when the vesicles have already formed, and the object is to prevent them suppurating; and, secondly, when the vesicles have not actually formed, and we wish to adopt a true abortive treatment, so as altogether to prevent their formation. In the first case the remedies to use are much the same as those which are employed for the purpose of preventing the papules of acne becoming pustular—that is to say, for the abortive treatment of a boil. Here the most important remedy of all is sulphur, which can be applied in the form of a gelatinous paste of sulphate of zinc; other useful substances, which can be applied in the form of lotions containing spirit, are corrosive sublimate, iodoform, carbolic acid, and resorcine. For the true abortive treatment there is nothing like ichthyol mixed with water and painted over the part affected, or a strong paste of zinc and resorcine.

Ground-Water From Cemeteries.

Dr. E. von Esmarch (*Zeitschrift f. Hygiene*, Band 7, Heft 1) has examined the question of the dangers of contagion through the drainage from cemeteries. His experiments show that where dead bodies are placed in water or buried, that the water or earth surrounding the body does not become contaminated with germs. He finds that in the case of anthrax, the bacilli die out very quickly from the dead body. He does not think the disappearance of pathogenic organisms from a dead body is due to the destructive processes of putrefaction, as these same organisms disappear from tissues preserved by antiseptic preservative fluids. He concludes, with several other German observers, that the proximity of cemeteries and the drainage-water from them have no influence in the spread of epidemic or contagious diseases.

He does not tell us whether the typhoid bacillus meets with the same fate as that of anthrax.—*Brooklyn Med. Journal*, June, 1890.

Sterilization of Milk.

The sterilization of milk (according to the *Molk-Zeitung*, 1889, p. 137) presents certain difficulties. The heating to 110° to 120° C. (230° to 248° F.), which temperature is necessary to sterilize liquids, causes a browning of the milk. At a temperature of 100° C. (212° F.) the sterilization is not complete, the spores of bacillus subtilis resisting this temperature for six hours. The heating to 75° C., as is done in many of the ordinary methods, does not sterilize, for the above-named spores can withstand this temperature for several days.—*Brooklyn Med. Journal*, June, 1890.

Absence of the Pectoralis Muscles.

In the *Berliner Klin. Wochenschrift*, March 10, 1890, Dr. J. Benario, Assistant in Professor Brieger's Clinic, reports an interesting case of a man who was found to have no pectoralis major or minor on the right side. In addition to this, he had defects of the arm and hand, which are fully described. The case is curious; and, while it need not be detailed fully here, it would probably prove of great interest to students of embryology and development.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

TREATMENT OF CHRONIC URETHRITIS.

One of the more frequent results of gonorrhœa in the male is a chronic urethritis, or gleet, affecting especially the prostatic portion of the urethra. The long continued inflammation effects changes in the mucous membrane and in the submucous tissues, in the lacunæ and glands, and at times in the ejaculatory ducts and seminal vesicles themselves. Before the invention of the endoscope, the instrument devised to enable the surgeon to see the urethra and interior of the bladder, our knowledge of the changes produced by gleet was derived from the sense of touch in exploring the passage with steel sounds and acorn-headed bougies, and from *post-mortem* examinations. Berkeley Hill, in some lectures delivered before the Royal College of Surgeons, in June, 1889, and since published in book form, states that in the same urethra, in different parts, may be seen superficial granular thickening of the mucous membrane, inflammation of the glands and lacunæ, areas of induration, and patches of fibrous tissue penetrating beyond the mucous tissue. Loss of epithelium leads to the formation of erosions which are surrounded by ridges of granulative tissue and are covered by muco-pus. These ridges when transverse occasionally produce bridle strictures. The deep indurations which follow upon infiltration of the submucous and erectile tissues become sclerosed and result in true organic strictures. Swelling and abscess of the urethral glands, and acute prostatitis and epididymitis are further complications which are present less frequently.

The symptoms of chronic urethritis are well known. The discharge from the urethra is ordinarily scanty, often just enough to glue the meatus together in the morning. If, however, the patient lives high, drinks malt liquors or wines, takes much exercise, especially of a kind to irritate the prostatic portion of the urethra, as horseback and bicycle riding is apt to do, the discharge sometimes increases, and, from glairy or whitish, becomes purulent. The omission of astringent injections is also at times followed by the same result. The condition described may last for months or years, and never gets well spontaneously. In these cases, says Mr. Berkeley Hill, there are generally a few patches of granulation in the bulbous or membrano-prostatic portions of the urethra, usually also with induration.

Treatment of chronic urethritis has been unsatisfactory hitherto because of the great difficulty in bringing remedies to act upon the affected tissues. Hill states that in each of one hundred and ten cases one at least of the four following conditions was present: Abnormally small meatus; stricture, single or multiple, slight or tight; patches of inflammation; and granular areas. Division of the meatus and subsequent passage of a large sound is the treatment for the first

condition. In the treatment of the second condition, stricture, which is by far the commonest cause of gleet, Hill appears to favor gradual dilatation with bougies. This, he says, splits the indurated tissue just as effectually as rapid divulsion. Having enlarged the meatus, if necessary, he passes three days afterwards as large a bougie as the urethra beyond the meatus will accommodate. This stretching must be repeated every second or third day for a week or so. The next step consists in attacking the granulations farther down by gradual dilatation, with gradual splitting. At each sitting, after the bougie has been passed, he inserts as large an endoscopic tube as the indurations will let go by, and while inspecting the interior applies a mop moistened, but not dripping, with a solution of nitrate of silver, ten to twenty grains to the ounce, to each swollen or granular area. If, as is often the case, the membrano-prostatic portion is also granular, he finishes the sitting by instilling, by means of Ultzmann's syringe, eight or ten minims of the silver solution behind the triangular ligament. On the days which intervene between the sittings, the patient is instructed to use an astringent injection, usually of the four sulphates of zinc (thirty to forty grains), alum (thirty to forty grains), iron (twenty grains), and copper (two grains), to eight ounces of water. The quantity injected should be half an ounce, and it should be retained at least one minute. Regarding the use of internal remedies, he says that in chronic urethritis of the penile portion he has abandoned the use of copaiba, sandalwood, cubebs, etc., finding them more apt to excite indigestion than to cure the urethritis. But when the catarrh is of the prostatic portion, cubebs certainly, and probably sandalwood, buchu and copaiba are valuable adjuncts to local remedies. In ninety cases of chronic urethritis the average duration of treatment before cure was obtained was two and a half months; but this, he adds, included treatment by many different ways.

The treatment indicated is certainly an advance over any possible hitherto, both in the adaptation of means to ends and also in the results achieved. It is not in the power of every one who has a patient with a bad case of chronic urethritis to have an endoscope, but it is possible, in an appropriate case, to divide the meatus, dilate the urethra to its full capacity, locate the inflamed areas pretty accurately with a sound or acorn-headed bougie, and instil astringent lotions so that they will come in direct contact with the affected areas. This is vastly better than the old plan of prescribing an injection and giving the patient copaiba until he is sick.

TETANUS AND ITS TREATMENT.

Every now and then the history of a case, demonstrating the curability of tetanus, finds its way into medical literature. The successful methods reported are numerous; scarcely any two observers finding equally beneficial results in the same method of treatment.

One thing, however, is evident, namely, that this frightful disease, if treated with drugs at all, must be treated heroically. In the REPORTER, October 26, 1889, three cases of tetanus were reported by Casati, in which the administration of one-sixth-grain doses of hydrochlorate of pilocarpine, given hypodermically every two hours, was followed by complete and speedy recovery.

Recently hypodermic injections of carbolic acid have given good results. Mention was first made of this method by Gualdi, at the Medical Congress held in Rome, October, 1888, who reported a case in which oft-repeated hypodermic injections of a one per cent. solution of carbolic acid resulted in a complete cure. An analagous case is reported by Dr. Francesco Paolini, in the *Riforma Medica*, January 13, 1890. The patient was a strong, healthy lad, who had received a contused and lacerated wound of the fourth and fifth toes of the left foot. Severe symptoms of tetanus, including com-

plete trismus, opisthotonos, and great tension of the abdominal muscles, rapidly developed. Neither hot baths nor large doses of chloral and bromide, were able to lessen the frequency or severity of the attacks. The painful symptoms were accompanied by a high temperature. The fourth day after the appearance of tetanus, Dr. Paolini began the administration of hypodermic injections of a one per cent. solution of carbolic acid, every three hours. [The report does not state in what quantity.] This treatment was continued for the first twenty-four hours, after which time the temperature fell, and the spasms decreased both in frequency and in severity. With the amelioration of the symptoms the number of the injections was gradually decreased; but the treatment was not abandoned until the trismus and rigidity of the abdominal muscles had entirely disappeared. This took place on the twenty-seventh day. Subsequent convalescence was complete and rapid.

Not long ago the same treatment was successfully employed in a similar case, with equally gratifying results, in the clinic of Dr. Baccelli, of Rome.

In connection with the carbolic acid method of treating tetanus, it is interesting to recall the results of certain experiments by Brieger, Kitasato, and most recently, Weyl, who found that carbolic acid is produced in considerable quantity in cultures of the bacillus of tetanus; and that a similar production of carbolic acid has been observed by Lewandowsky, in the cultures of several other bacilli.

Another interesting case, demonstrating the curability of tetanus, is reported by Dr. Tacke, of Wesel, in the *Deutsche med. Wochenschrift*, March 6, 1890. The patient was a school boy who had sustained a slight wound in the ball of his thumb from a pistol-shot. Immediately after the accident he went to a stream near by and washed the wound, at which time the wound came in contact with the ground. Five days later symptoms of approaching tetanus, such as stiffness of the jaws and tongue, and difficulty in deglutition, became manifest. The following day the wound was reopened and a bluish-looking discharge and three bird-shot were removed. The disease now advanced rapidly and general tetanic convulsions soon became frequent, and were produced by the slightest noise or disturbance. Dr. Tacke immediately instituted the following treatment: The patient's room was darkened and at the bed-side a nurse was stationed with chloroform in readiness. As soon as the onset of a convulsion was evident, the attendant placed a cloth, wet with chloroform, over the patient's nose. Later, as the chloroform provoked vomiting, ether was substituted and was well tolerated. Besides this, clysters of chloral hydrate, with the addition of a small quantity of cocaine, to render them more tolerable, were administered. These clysters were alternated with hypodermic injections of morphine; finally a hot bath was administered twice a day and while the patient was in the same, vigorous massage was applied. The energetic massage acted most beneficially, while a light touch would immediately call forth a convulsion.

After five days of the above treatment, a slight improvement became apparent. Slow and fluctuating convalescence followed, and the treatment was discontinued twenty-six days after the appearance of the disease, at which time a slight stiffness of the lower extremities was the only symptom remaining. This also soon passed off.

TESTICLE THERAPY.

It is sad to note that Brown-Séquard continues to believe in his testicle therapy. At a recent meeting of the Society of Biology, he reported that he had been using the mixture of testicle and water by injection into the rectum, with as good results as he had obtained by hypodermic injection. He also reported, with approval, that a friend of his had injected his own semen into the subcutaneous connective tissue of his wife to cure her of metrorrhagia.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

CLINICAL LECTURES ON THE VARICOSE VEINS OF THE LOWER EXTREMITIES. By William H. Bennett, F. R. C. S., Surgeon to St. George's Hospital. With three plates. 8vo, pp. ix, 93. London and New York: Longmans, Green & Co., 1889. Price, $2.00.

This volume is made up, for the most part, of lectures which appeared in the London *Lancet* during the year 1889. It contains the conclusions reached by its author from the study of a large number of cases for a period extending over a number of years. Mr. Bennett analyzes two hundred and fifty-nine cases which occurred in men and three hundred and fifteen which occurred in women, and declares that, apart from pregnancy, varicose veins are more frequent in men than in women. The disease, he says, arises for the most part from congenital and often hereditary defect or other abnormality of the venous apparatus. It may begin in the deep veins and subsequently involve the superficial, or it may involve the superficial veins only; the large mass of varicose veins in the lower part of the thigh, often associated with a globular varix at the saphenous opening, may be fed by the deep veins and be independent of the superficial.

Regarding the symptoms of incipient, uncomplicated varix, he says the commonest are pain and œdema, with a feeling of weight and general weakness in the limb. The discomfort and swelling increase as the day advances from morning to night, and there is often intense itching shortly after the patient lies down. In the treatment of varicose veins of the lower extremity the first essential is declared to be to bring about a healthy condition of the secretions generally, especially of the bowels and of the menstrual function. Of purgatives, he says, the best is sulphur in some combination, and the next in efficacy, cascara. In cases in which the liver is sluggish an occasional dose of mercury is absolutely necessary. In addition to this internal treatment, rest in the recumbent position or elevation of the limb for half an hour to an hour at definite intervals during the day, combined with appropriate exercise, massage and baths will generally have to be employed. Pressure, he thinks, is best applied by means of a bandage or an elastic stocking; if the latter is made properly, *i. e.*, so that the pressure is greatest at the foot and gradually diminishes towards the knee, it is seldom intolerable.

The author speaks with appreciation of the radical treatment of certain cases of varicose veins of the extremities, and expresses a decided preference for the method of excision. The operation is described and illustrative cases cited. He is careful to say, however, that the operation is applicable to a comparatively small number of cases. With appropriate antiseptic precautions he regards the operation as safe.

The book is a valuable contribution to minor surgery. The publishers are to be congratulated on having presented it in a fitting and handsome style.

CHRONIC URETHRITIS AND OTHER AFFECTIONS OF THE GENITO-URINARY ORGANS. Three lectures delivered at the Royal College of Surgeons in June, 1889. By Matthew Berkeley Hill, M. B. Lond., F. R. C. S., Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital, etc. With colored plates. 8vo, pp. xiv, 47. London: H. K. Lewis, 1890.

The lectures from which the present volume has been prepared were delivered before the Royal College of Surgeons, and printed in the *Illustrated Medical News*, in January, 1890. The purpose of the lectures was to describe the forms of chronic urethritis as seen by reflected light, and the treatment of the affections mainly by topical methods. They have been revised, however, since their first publication.

The author first describes the appearance of the healthy urethra, its expansibility, its lumen, color, furrows and papillæ, and its glandular supply. He then takes up the various morbid changes which occur, beginning with a simple catarrh and ending in organic stricture. The descriptions are made much more intelligible by colored plates of all the conditions referred to, which have been made from drawings of the appearances presented by the urethra when viewed in the endoscope. The drawings were made by Mr. Frank Collins.

Regarding the duration of contagion in chronic urethritis, the author expresses himself cautiously. He says: "In the present uncertain state of our knowledge of the precise influence of the gonococcus as a factor in gonorrhœa, it is rash to assume that in the absence of [the] gonococcus from any particular drop of discharge the danger of contagion is past." He is inclined to think, however, "that when the discharge is secreted entirely from granular patches, the crypts and ducts of glands having ceased to furnish pus, we may consider the discharge to be no longer specific in character or capable of communicating the disease to others."

As regards treatment, he says the most effectual method is by means of the endoscope tube. With this the exact condition of the urethra can be seen, the granular patches and strictures localized, and appropriate treatment applied to each directly and with precision.

The final lecture is devoted to a consideration of prostatitis and to tubercle of the prostate. Mr. Hill considers gonorrhœa indirectly an exciting cause of the latter. The affection most likely to be mistaken for it is stone in the bladder. In the former a little shreddy mucus, pus, or a drop of blood may be washed out in the first portion of the urine; while in stone these come at the end of the stream. The pain in tubercle of the prostate is felt a little behind the tip of the penis, rather than precisely at the tip, as in stone.

These lectures are a valuable contribution to our knowledge of the genito-urinary diseases treated of, and we are glad that they have been republished in a handsome and permanent form becoming their real worth.

Correspondence.

A Question in Abdominal Surgery.

To the Editor.

Sir: Has any reader of this journal ever had a case of abdominal cow-rip in a woman advanced in pregnancy? If so, I would be glad to have it communicated to me.

Yours truly,

Robert P. Harris, M. D.

Philadelphia.

NOTES AND COMMENTS.

Hydrophobia Notes.

Lyons.—Hydrophobia in Lyons has become so prevalent that the Pasteur Institute is chiefly occupied with patients from the silk metropolis or its neighborhood. The *Chemist and Druggist*, May 24, 1890, says that Dr. Galtier, the mayor of the city, attributes the outbreak to the inordinate love of the Lyonese for dogs, which renders all police regulations nugatory. Failing in his efforts to get municipal co-operation, the doctor has induced the National Society of Medicine to send an official petition to the Prefect of the Rhone Department, requesting his intervention in this emergency.

Pseudo-hydrophobia.—It is stated in the *American Advertiser Reporter*, May 28, 1890, that a Mr. John S. Abell, business manager of the *Springfield* (*O.*) *Democrat*, was suddenly seized with a spasm of frenzy, on May 15, at his office. He had been bitten on the finger a day or two before by his dog, and the physician attributed the attack not so much to hydrophobia as to the worry about the supposed danger of the bite.

Death attributed to hydrophobia. — The Philadelphia *Ledger*, June 2, reports that a farmer named John Harry, living near Petersburg, Lancaster County, Pa., died from what was supposed to be hydrophobia, May 31, after two days' illness. He was bitten by a dog two months before.

Report of a case.—It was reported June 6 that William Nice, a farmer living near Douglassville, Pa., was suffering with symptoms of hydrophobia, caused by the bite of a cow, which had been bitten some time before by a rabid dog. His death is not reported.

A scare from a Pasteur Institute.—It was reported on June 6 that there was considerable excitement at the Rush Medical College, Chicago, because a number of rabbits, which had been inoculated with the so-called rabies virus by Dr. Lagorio (who has been trying to start a Pasteur Institute in that city), had been stolen. It was given out that if the thief happened to be bitten, a case of rabies would no doubt result.

Pasteur Institute in New York.—The operations of the Pasteur Institute in New York, conducted by Dr. Gibier, from its opening February 18 to April 7, were reported by Gibier in the *Boston Medical and Surgical Journal*, April 17, as follows: Thirty persons had applied for treatment, of whom nine had been treated, and were then in good health. In three cases hydrophobia was experimentally shown to exist (inoculation of the nervous substance of the dogs to other animals, who died with the ordinary symptoms of hydrophobia), and also by this fact, that in one case a horse, and in another case a hog, bitten by the same dogs, have since died from hydrophobia. In six other cases rabies was very probable, but the dogs disappeared, or their bodies were thrown away without being sent to the Institute. In the month of April seven persons were treated. In three of these cases hydrophobia (according to the Pasteur theory) was shown to have existed in the dogs by the inoculation of other animals with the nervous substance of the dogs that had bitten the patients. In the four other cases rabies was thought to be very probable; but the dogs had disappeared, or their carcasses had been thrown away instead of being sent to the Institute. These patients were living at the last report, as (it says) were also *thirteen* patients inoculated during the month of March.

[The reader will note that Gibier in April reported only *nine* cases treated from February 20 to March 31.]

In his letter of April 9 to the *Boston Medical and Surgical Journal*, Gibier says: "In order to be protected against the fatal danger of an accidental infection during the work, I have inoculated myself and three of my assistants."

The daily papers of June 2 contained accounts of the arrival in New York, to be treated by Gibier in the Pasteur Institute, of seven small boys, from four to twelve years old, who had been bitten at St. Joseph, Ill., by a dog supposed to be rabid. The biting is said to have occurred on May 25, and also on May 29. One account says the dog died in convulsions a few minutes later (May 29) and another says it died two days after the biting (May 27) in a violent attack of rabies. It is said that a mad-stone was applied to each wound before the boys were despatched to Gibier. After a course of inoculations they were sent home and at the last report they were still living. [It is unfortunate that a mad-stone was used in these cases, because it will never be known certainly whether it or Gibier saved their lives, or if their lives were ever in danger, for that matter.]

On June 27 it was reported that Gibier

had refused treatment to two persons said to be already suffering with rabies. At the same time was reported the arrival at his Institute of two patients: one a colored boy from Asheville, N. C., named John Scott. Another named Thomas Copernig was expected the next day, as was also a colored girl, five years old, from Augusta, Ga., said to have been bitten by a dog which had bitten one of the first patients sent to Gibier. [This association of facts must not be misunderstood. In it all there is no evidence that there was ever or anywhere rabies present.]

Pasteur Institute, Paris.—Dujardin-Beaumetz reported about May 2 (*Progrès Médical*, May 3, 1890) that during 1889, 236 persons residing in the Department of the Seine were treated at the Pasteur Institute, in Paris; of this number three died; 40 other persons were, during the same period, and in the same district, bitten by rabid dogs, of whom also three died. According to the *British Medical Journal*, May 24, 1890, the deaths from hydrophobia in Paris were in 1880, 4; in 1881, 21; in 1882, 9; in 1883, 4; in 1884, 3; in 1885, 22; in 1886, 3; in 1887, 9; and in 1888, 19. The Pasteur patients in the Department of the Seine in 1887 numbered 307 (3 deaths); in 1888, 385 (5 deaths); and in 1889, 236 (3 deaths).

Pasteur and Rabies.—Pasteur has transmitted to the Academy of Sciences a statement of the number of persons treated at the Institute from May 1, 1888, to May 1, 1889. There were inoculated 1,673 persons bitten and suspected to be affected with rabies, among whom were 186 foreigners and 1,487 French. Ten subjects bitten in the face and hands died during the treatment; three died after the treatment. Strictly speaking, the proportion of deaths, notwithstanding the treatment, is therefore 3 per 1,673, or 1 in 554 persons treated. In other words, the proportion of deaths being 13, there would be one death per 128 persons treated or under treatment. These figures, which are not accompanied by any comments from M. Pasteur, are evidently in favor of preventive inoculations.

Statistics, said to be complete, published by the Pasteur Institute in Paris, state that from January 1, 1886, to December 31, 1889, 7,393 persons bitten by mad dogs have been treated; 53 of these have died—a proportion of 0.67 per cent., and they figure that among the 7,893 patients of the Pasteur Institute, 1,265 would have died had not the Pasteur method of treating hydrophobia been carried out.

[It will be observed that these statistics do not account for the time between July 7, 1885, when Pasteur did his first inoculation on the boy Meister, and the end of that year. Also, that they actually claim that Pasteur has saved more lives in four years than ever have been lost in the whole world from hydrophobia in twice that time.]

Antipyrine in Tetanus.

Owing to the high mortality and rapid course of acute tetanus—death occurring within five days in 56 per cent. of the fatal cases—and because its pathology is involved in much obscurity, a host of remedies has been suggested and tried to stay the progress of the disease. An examination of a list of cases reported during the past year discovers advocates for morphia, chloral, bromide of potash, salicin, salicylic acid, physostigmia, pilocarpine, cocaine, bromide of coniine, while in one example, quoted in the *Annual of the Universal Medical Sciences*, cure is claimed under the action of metallotherapy. One polypharmacist believed he saved his patient with a prescription composed of bromated camphor, hyoscyamine, aconitine and veratrine given in syrup of chloral; in addition to which arseniate of strychnia, and a descending current of electricity along the spine were employed!

Alexandre Paris (*L' Union Médicale*, Nr. 8, 1890) reports the case of an old man who developed symptoms of tetanus—it is not stated whether traumatic or idiopathic—in the middle of June. He improved under chloral, suffered a relapse on the 8th of July, which developed into a widespread involvement of the muscles of the thorax, abdomen and lower limbs, was uncontrolled by chloral, but which, on July 28, was rapidly alleviated by 3-gramme doses of antipyrine repeated on the two succeeding days, after which not a muscle was convulsed. The drug was administered for the relief of pain in the limbs with the unexpected result not merely of curing this, but of relaxing the spasmodically contracted muscles.

The apparent cure of one case of tetanus by the administration of a given remedy does not warrant entire confidence in its efficacy in future examples of the same disease. We know of one case of seemingly

hopeless acute tetanus which was relieved and finally cured by huge doses of quinine and large draughts of champagne; that is, relief and cure followed the use of these agents. Hence the query by the reporter, whether in this case the result was a simple coincidence or due to the antipyrine, is more than pertinent. We have always believed that the best results in the treatment of acute tetanus would follow the day-time employment of large amounts of bromide of potash to guard the afferent pathways and benumb the receptive centres in the spinal cord, the nightly use of chloral and morphia to control the wakefulness of apprehension and the sleeplessness of pain, the administration of chloroform or nitrite of amyl during the convulsive seizures to overcome cramp-asphyxia, and the exhibition of concentrated liquid nourishment to alleviate depression and prevent impending exhaustion. We have called attention to Paris's single observation in regard to antipyrine, although unaware that our present knowledge of its physiological action justifies any sanguine expectations, because one case may form a nucleus for others sufficient in number to justify definite conclusions, and because new facts, as the author himself hopes, can alone answer the query of coincidence or cure.—*University Med. Magazine*, April, 1890.

Medical Emergencies.

In an article on the treatment of medical emergencies, in the *University Medical Magazine*, Jan., 1890, Dr. James Tyson says that in fainting, unless it be fatal syncope, the heart does not cease to beat. Its action is simply so feeble that not sufficient blood is sent to the brain to maintain consciousness, or to the arteries to produce a pulse. The loss of consciousness is, therefore, also preceded by blindness, and if standing, the victim falls heavily to the ground. The effect on the pulse at the wrist is either to cause an entire absence or extreme smallness. There is also extreme pallor and lowered temperature. The duration of the attack is various, from a few seconds to many hours, or more rarely the patient never comes out of it, as where it is due to heart disease, as the fatty heart, aconite poisoning or hemorrhage—fatal syncope.

In the treatment of syncope, the first step is to place the patient in a recumbent position flat on the back, with the head low. The clothing should be loosened around the neck and body, the access of fresh air should be freely permitted, and to this end persons should be kept at a distance. Diffusible stimulants, as aromatic spirits of ammonia, and brandy or whiskey should be administered, or strong ammonia may be inhaled. Cold water may be dashed in the face, the respiration being thus excited and in turn the heart caused to beat. If recovery ensues, the heart's beat becomes more distinct, the pulse reappears at the wrist and consciousness slowly returns. It is only in cases where the heart is too badly damaged, as where there is fatty metamorphosis of its muscular fasciculi, or its valves are badly diseased, or where too much blood is drawn off, that resuscitation fails to take place.

The extremest measures required to overcome syncope are those employed in the resuscitation from drowning, the consideration of which scarcely comes within the purpose of the present paper, although such an accident is truly a medical emergency.

The apoplectic seizure is a more dangerous condition. Accompanied like fainting by unconsciousness as an essential symptom, it is due to a very different cause. There is here too much blood in the brain, either within or without the blood-vessels. In treating it the patient requires to be bolstered up, the head high and the blood kept out of the brain as much as possible. In the true apoplectic seizure, with even a moderately strong pulse, blood is to be taken from the arm freely, sixteen ounces or more. Simultaneously an aperient, which in the absence of consciousness must be one of which the dose is small, as one-sixth of a grain of elaterium in pill or powder, or a couple of drops of croton oil in a teaspoonful of sweet oil or glycerine. A large enema to which an ounce of turpentine is added, is useful. Ice to the head—an ice cap—may be of use. Of less service is counter-irritation to the nape of the neck or the temple by a blister.

Insanity in Australian Aborigines.

In a paper read before the Intercolonial Medical Congress of Australasia, Dr. Morton Manning, the inspector-general of the insane in New South Wales, gave a most interesting account of the cases of insanity found to have occurred among the aborigines of Australia. Mental disease would ap-

pear to have been a very rare affection while they were in their primitive and uncivilized condition, and the manner in which they dealt with the few cases which did arise was of the most drastic nature. "If the lunatic was violent or aggressive, he was promptly slaughtered; if melancholy, he was allowed, if so disposed, to commit suicide; if demented and helpless, he was allowed to die; and only when quiet and peaceable, and when his erroneous ideas did not result in offensive acts, was he allowed to continue in the tribe." In the course of time, as the aborigines were brought more into contact with civilization and its attendant vices, insanity increased rapidly in proportion to the number of the population; and Dr. Manning states that since 1868, 18 aborigines had been admitted into the asylums of New South Wales, from a population which has never during that time exceeded 2,500, and is now less than half that number. In the census year 1881 the proportion of the aboriginal insane to the aboriginal population of New South Wales was 2.83 per thousand, a proportion in excess of that for the general population; and at the close of 1887 it was upwards of 5 per thousand. The causes of insanity in the 32 cases of aborigines admitted into the asylums of Queensland and New South Wales were in a considerable proportion of the cases due to drink. The prevailing type of the malady was mania, passing rapidly into dementia. All the melancholic cases originated in jail. Three were epileptics. No case of general paralysis, or anything like it, was seen. There were 20 deaths; and in several cases the only cause which could be assigned was marasmus—a gradual wasting without tubercular or other manifest ailment. The average duration of life was much shorter than in Europeans; the confinement, though tempered by many unaccustomed comforts, being apparently the great factor in shortening life.—*Science*, April 4, 1890.

Idiopathic Pruritus in Connection with Parturition.

In the *Vratch*, No. 14, 1890, Dr. Serghëi I. Krastïlevsky, of Ekaterïnodar, details a very rare and curious case of a priest's wife, a strong and generally healthy woman, who had had fifteen labors at full term, and on each occasion suffered from a most agonizing itching all over her body, with intense burning about the palms and soles. The pruritus invariably appeared exactly a week before parturition, so that the woman was always able to most precisely fix the day of expected delivery, and disappeared in one or two days after labor. The symptoms were considerably relieved by tepid baths, while on the last (15th) occasion the author succeeded in almost instantaneously cutting short the patient's suffering by the following application:

℞ Acidi carbolici . . . . . f℥j
Glycerini . . . . . f℥j
Spiritus vini rectificati . . . . f℥vi
M. Sig. To be applied to the affected parts.

Two similar cases have been recently reported by Dr. B. I. Feinberg, of St. Petersburg, in the *Bolnitchnaia Gazeta Botkïna*, Nos. 7 and 8, 1890. Both of the patients, one a healthy woman eighteen years old, and a nervous woman with cardiac disease, had general pruritus during each menstrual period for two days before, and during the two first days of the flow. In both the symptoms were greatly intensified during parturition, and lasted for four days or so after the latter. Dr. Feinberg believes that in either of his patients the phenomenon was of a nervous origin.

Leprosy in the United States.

Dr. Holmböe, surgeon to the General Hospital at Bergen, in Norway, made, in 1863, a tour of Illinois, Iowa, Minnesota and Wisconsin, in which States our Norwegian emigrants principally settle. Investigating the leprosy prevalent among them, he came to the following conclusions:

(1) There are, among the Scandinavian population in North America, no instances of leprosy attacking those born in the country.

(2) There are among the Norwegians, who have immigrated, not a few who are now the subjects of leprosy.

(3) Most of the leprosy patients were already leprotic when they came over.

(4) In not a few cases, also, the leprotic symptoms had their first outbreak in America. This has happened, however, to those who were adults at the date of their immigration, and who had, before coming over, lived in such a manner as to predispose to the disease, and who also had not profited to the same extent as most in the general advantages life in America offers.

(5) Leprosy, when imported into America, has, as a rule, a *longer* and *milder* course than in Norway, and shows also a stronger tendency to spontaneous improvement and recovery.

(6) Life in America will in general avert the outbreak of leprosy, so that many will there remain wholly free who, according to all estimate of probabilities, would have suffered had they remained in Norway.

(7) Climate has certainly a great share in effecting this change. It is not nearly so rigorous and inclement in America as in Norway, and thus does not make the same demand on the vital powers of resistance.

(8) It is probable, however, that the altered mode of life has quite as large a share as the climate. The immigrants are, in a general way, far better off than they were in Norway; there is not the same necessity of exposing themselves so much to the influence of climate, and when exposure is necessary they are better protected.

(9) Leprosy will disappear amongst the Norwegian population in the States, or will be found only in isolated imported cases. It will not be transmitted from generation to generation as an endemic disease.

Such are the opinions of a highly qualified investigator on this important subject. Even if a little sanguine, they are probably near the truth; at any rate, they have not as yet been met by any evidence on the opposite side. Their value, as indicating that the duration of the leprotic diathesis under a favorable change of conditions is not without limit, is very great.—*Brooklyn Med. Journal*, June, 1890.

Crush of the Arm.

At the meeting of the Allegheny County Medical Society, held Feb. 19, 1890, Dr. Buchanan reported the following case of crushed arm, which he treated successfully without amputation. About six or eight months ago he was called to see a little girl whose arm had been caught between the bumpers of two freight cars; the arm was crushed, wholly crushed from the wrist to the elbow. The vessels were not injured, but there were multiple fractures of both bones and considerable pieces of bone had to be taken out. More than half the muscular tissue was crushed off. The skin was extensively lacerated. The arm was shapeless. It was so evidently a serious injury that the parents and friends and all persons who saw it thought the arm must be amputated. The arm was not amputated; it was thoroughly cleansed and put together, dressed with a straight splint; on no other kind of splint could the arm be kept in the semblance of an arm. It united without any suppuration, as is usual with such cases when antiseptically dressed, and while the child has not a beautiful arm, nor a very straight arm, she has a hand and a wrist and an elbow-joint that are almost as useful as before.

Removal of Micro-Organisms from Water.

Krüger (*Zeit. f. Hygiene*) considering the fact that more bacteria are usually present in rivers than in lakes, notwithstanding that lakes themselves in many cases are more or less polluted by rivers passing through populous towns, believes that this rapid decrease in the number of organisms may very possibly be due in part to the action of direct sunlight, but in the main to the tendency of water in a comparatively undisturbed state to deposit and precipitate. He, therefore, carried out a number of experiments with a view to determine how far the removal of organisms was brought about by the mere mechanical deposition of inert matter and also by precipitation as a result of chemical action. The mechanical precipitants employed, all in a state of fine powder and sterilized, were alumina, brick dust, clay, chalk, sand, coke and charcoal. Water obtained from an ordinary service pipe was impregnated with a liquid containing a bacillus growth of a species incident to tap water. This was divided into two portions —one for precipitation with the inert substance and the other was untreated for the sake of comparison. Experiments were similarly carried out in which precipitation was obtained as a result of chemical action such as is brought about by the addition to the water containing naturally lime, magnesia, etc., substances like wood ash, sulphate of alumina and slaked lime. The general conclusion come to by the author from the results obtained is that undoubtedly large numbers of bacteria are carried down by inert substances merely sinking in the water, but that the action is very considerably increased when, in addition to mechanical deposition, a chemical precipitation also takes place. The corollary is evident—

inert substances do mechanically assist in the precipitation of micro-organisms, but preference should be given to chemical treatment.—*Druggists' Circular*, April, 1890.

The Deadly Cold Bed.

A writer in *Good Housekeeping* says: "If trustworthy statistics could be had of the number of persons who die every year, or become permanently diseased, from sleeping in damp or cold beds, they would probably be astonishing and appalling. It is a peril that constantly besets traveling men, and if they are wise, they will invariably insist on having their beds aired and dried, even at the risk of causing much trouble to their landlords. But the peril resides in the home, and the cold "spare room" has slain its thousands of hapless guests, and will go on with its slaughter till people learn wisdom. Not only the guest, but the family often suffer the penalty of sleeping in cold rooms, and chilling their bodies at a time when they need all their bodily heat, by getting between cold sheets. Even in warm, summer weather, a cold, damp bed will get in its deadly work. It is a needless peril, and the neglect to provide dry rooms and beds has in it the elements of murder and suicide."—*Druggists' Circular*, April, 1890.

Treatment of Baldness.

The treatment recommended by Lassar, of Berlin, for alopecia pityrodes and alopecia areata has been attended with some brilliant results. According to Dr. Graetzer's article in the *Therapeutische Monatschrift* and quoted in the *New York Med. Journ.*, May 10, 1890, but few cases resist the treatment, and after a few applications the downy sprouts may be seen. The following procedure is to be repeated daily: 1. The scalp should be lathered well with a strong tar soap for ten minutes. 2. This lather is to be removed with lukewarm water, followed by colder water in abundance; then the scalp is to be dried. 3. A solution of bichloride of mercury, 1 to 900, the menstruum being equal parts of water, glycerin and cologne or alcohol, is to be rubbed on. 4. The scalp is then rubbed dry with a solution containing beta-naphthol, 1 part, and absolute alcohol, 200 parts. 5. The final step in the process is an anointing of the scalp with an unguent containing two parts of salicylic acid, three parts of tincture of benzoin, and 100 parts of neat's-foot oil. This treatment should be persisted in for a period of six weeks or longer. Lassar has done much to awaken the profession from the lethargic state into which it had fallen in regard to the treatment of alopecia; he is reported to have treated a thousand cases in the manner described. The attitude of physicians towards this affection of the scalp has been one of inattention and indifference. The parasitic theory of the causation of hair-fall, as advocated by Unna and Sehlen, has its support in those not infrequent cases where the trouble seems to be referable to the use of unclean utensils by the barber. In this class of cases Lassar's treatment will find its indications and successes more frequently than in that other, neurotic, class described by Michelson and Schütz as occurring in young persons who have a "nervous" history or have met with a traumatism affecting the head and brain.

Extraction of a Key from the Trachea.

Dr. M. G. Sloan, of Dexter, Iowa, writes to the *Journal of the American Medical Association*, April 12, 1890: On the evening of Feb. 14, 1890, Carl Blohm, aged 2 years, was brought to my office by his father, who stated that the boy had swallowed a key a few moments before. The patient was voiceless, dyspnœa was constant and alarming, and there was a frequent croupy cough. There was great retraction of the soft parts about the clavicles and in the infra-mammary regions in inspiration. It was very evident that the foreign body was somewhere in the air passages, and it seemed to me probable that it had not passed much below the larynx, as I could on no other theory account for the complete aphonia. However, neither with the finger nor with a pair of laryngeal forceps was I able to reach it through the mouth. It was plain that relief, to be of avail, must be speedy. Accordingly, after ineffectually trying a vigorous shaking with the patient inverted, I proceeded to perform tracheotomy under chloroform anæsthesia. The operation just above the isthmus of the thyroid was chosen, and in making the incision in the treachea I was so fortunate as to come directly upon the lower and smaller end of the offending key; and

now came the part of the affair that seemed to me to be of peculiar interest. The key, or at least the large end of it, was so much wider than the diameter of the trachea that with the ordinary laryngeal forceps I was wholly unable to remove it from its position, as the blades of the instrument would slip off at every effort to grasp and remove the foreign body. It was only by taking a stout pair of polypus forceps that I was enabled to extract it. The key was of steel and measured 30 millimeters in length and at the widest part 13 millimeters in width. I have not been able to find in any authority accessible to me a table of the diameters of the trachea at different ages, but I am confident that in this patient it did not exceed 7½ or 8 millimeters. Relief to respiration was perfect, and as soon as the little fellow regained consciousness he audibly expressed his satisfaction with the result, as I held my finger over the tracheal opening to enable him to use his vocal organs. No tube was used, as I could see no indication for it, and the incision was allowed to close, which it did inside of forty-eight hours. A pretty severe broncho-pneumonia came on on the second day and lasted four or five days. The patient is now practically well.

Inoculation of Erysipelas in Diphtheria.

The *Internationale Klinische Rundschau* publishes an article on the treatment of diphtheria by inoculation with the virus of erysipelas, as practiced by Dr. Babchinski, of Kieff. How Dr. Babschinski arrived at his novel method of treatment is described in the *Lancet*, April 26, 1890. His own son had been suffering from gangrenous diphtheria, and the case seemed hopeless. The diphtheritic process extended to the nares, and the boy scratched himself until ulceration resulted. Erysipelas supervened round the ulcer and made the prognosis, if possible, still worse. Suddenly, however, the boy became better, and ultimately recovered. Dr. Babchinski subsequently met with similar cases; and, concluding that erysipelas is antagonistic to diphtheria, he began to inoculate patients suffering from the latter with the bacteria of the former disease. The inoculation succeeded nearly always, and was performed by means of punctures in the submaxillary region. Of fourteen inoculated patients two died before the development of the erysipelas, but all others recovered. The patients took no medicine whatever, but the houses in which they lived were carefully disinfected. In every case in which erysipelas supervened spontaneously on diphtheria, the latter disease was mild and the erysipelas was not of a dangerous character.

Death from Chloroform.

A death from chloroform occurred at the Bootle Borough Hospital, Liverpool, April 19, when the surgeon was proceeding to remove an adipose tumor from between the shoulders, which interfered with the patient's occupation. The victim was a barman, thirty-nine years old. He had never had any previous illness, and had undergone similar operations on two former occasions. The patient was a big, strongly-built, broad-chested man, who had a number of these adipose growths disseminated over the surface of the body. It was intended to get the patient under with chloroform, continuing the anæsthesia with ether. The patient took the chloroform readily enough and the breathing, after a little preliminary struggling, became regular. Anæsthesia was complete when about two drachms had been inhaled, and the patient was then turned on the side. Coincident with the first incision, however, respiration ceased and the face became cyanosed. Artificial respiration and inversion was at once resorted to, but without success. The heart is stated to have ceased beating simultaneously with the respiration. *Post-mortem* the right heart was full of blood, while the left was empty and contracted. The heart weighed 15 ounces and its tissues were very friable. No valvular disease was found, but there was evidence of atheroma of the aorta. There was a curious inequality of the pupils, the right being dilated and the left contracted.—*Medical Press and Circular*, April 30, 1890.

Sweating Feet.

The *National Druggist*, May, 1890, gives the following formula for perspiring feet, which is claimed to be most efficacious:

℞ Perchloride of iron . . . . . ℥iii
Glycerin . . . . . f℥i
Essence of bergamot . . . . . f℥ii

M. Sig.—Apply with pencil or swab.

NEWS.

—Dr. Charles W. Goucher, of Erie, died June 23, aged sixty-two years.

—Dr. F. E. Vandersloot, of Herndon, Va., died June 19, in his eighty-fourth year.

—A rumor that a yellow-fever patient had reached Philadelphia, June 22, has been promptly and authoritatively denied.

—Dr. John H. Githens, formerly a practitioner of dentistry in Philadelphia, died at Pleasantville, N. J., June 26, aged eighty-three years.

—Dr. W. E. Ashton and Dr. J. M. Baldy, of Philadelphia, have been charged with cruelty to animals, in vivisection, and have been held for trial in court.

—Dr. W. U. Miller, a graduate of the Medico-Chirurgical College, of Philadelphia, who came to York about June 1, died June 19 after a surgical operation.

—The inhabitants of Brunswick, Ga., were indignant at a report that a man had died in that place on May 23 of yellow fever. The report was authoritatively denied.

—H. F. Bradbury, "Dean of Trinity University in Vermont," a fraudulent institution, has been indicted by the Grand Jury of the United States District Court, Boston, for issuing bogus diplomas.

—A man named Carl Steinrück was arrested in Philadelphia, June 20, on the charge of practicing medicine without being registered, and was on June 23 held in $1,000 bail for trial in court.

—Edward Malley, one of the wealthiest and most prominent citizens in New Haven, Connecticut, was arrested, June 18, for refusing to answer certain questions put by a census enumerator. He was released on his own recognizance.

—Two physicians, of Philadelphia, Dr. William L. Taylor and Dr. Andrew Graydon, were recently sued for $5,000 damages on June 16, by a woman who claims that on their affidavit she was improperly committed to the Norristown Hospital for the Insane.

—Dr. Ousley Smith, an English physician, was found staggering upon the street in Boston, June 28, having swallowed morphine with suicidal intent. He arrived in Boston from Montreal over a week ago, and became discouraged at not getting employment.

—Dr. F. B. Morris, 65 years old, attempted to commit suicide in a police station June 27. He is said to be an habitual drunkard. After being locked up in a cell at the station house he broke his spectacles and with a piece of the glass opened a vein in his left arm. When discovered he was bleeding profusely.

—The Bishop of Dutch Guiana was in Baltimore, June 22, and said that leprosy exists to an alarming extent in Surinam. Three of the Redemptorist Fathers have been attacked by the disease, and one of them is dying of it. Rev. Charles Currier, of Boston, who has also been among the lepers, accompanies Bishop Wulfingh.

—Dr. Peter Matthew Bernardy, died at his residence in Philadelphia, June 26, of pneumonia, in his eighty-fifth year. He was born August 15, 1805, at Montpelier, France, where he received his early education and the degree of Doctor of Medicine. In 1838 he came to this country with his family and settled in Baltimore. Soon after he moved to this city, where he practiced for fifty years.

—The cholera in Spain is diminishing. It was reported, under date of June 28, that there have been no further deaths from cholera in Valencia, and only three new cases reported in the province. There had been no new cases at any port or place near the coast in the last forty-eight hours. Should the condition continue to improve the Senators and Deputies will ask the Government to raise the quarantine against arrivals from Valencia.

—A telegram from Pittsburgh, dated June 30, says that Rev. Father Mollinger, who had been curing diseases by faith, was lying at the point of death. He attended 10,000 people on St. Anthony's day, but the strain was too much for him and he broke down the next day. His friends have given up hope that he will recover, but do not anticipate his immediate demise. The newspapers say that Father Mollinger is worth nearly two million dollars!

—Dr. Hoene was arrested in Milwaukee, Wisconsin, June 15. He telephoned for the police to come to his office. When they arrived he was smoking a pipe while two feet from him was the body of a girl. Dr. Hoene said she was taken with a fit on entering his office and died. He refused to say anything further, except that he did not know her. The girl, it was learned, had been peddling a patent medicine for Dr. Hoene for some time. [The directory gives the name of A. J. Hoehnes, as being a graduate of the University of Michigan in 1869.]

MEDICAL AND SURGICAL REPORTER

No. 1741. PHILADELPHIA, JULY 12, 1890. Vol. LXIII.—No. 2.

Clinical Lectures.

INFLAMMATION OF THE UTERINE APPENDAGES.

BY CHARLES P. NOBLE, M. D.,

SURGEON IN CHARGE KENSINGTON HOSPITAL FOR WOMEN, PHILADELPHIA.

Gentlemen: The patient upon whom I shall operate to-day has well-marked inflammation of the uterine appendages, and there is every reason for us to expect on the left side to find pyosalpinx, which I believe is of gonorrhœal origin. Our patient has been married nine years, is twenty-eight years old, has had two miscarriages, but no children; the last miscarriage was eight years ago. She has always suffered from dysmenorrhœa, which has grown steadily worse since her marriage. Leucorrhœa has always been present, and on several occasions has been quite irritating in character. Eight years ago she began to have groin pains and to suffer on exertion. Dyspareunia also became marked. Six years ago she had a labial abscess, and she has since had three others. She has never been confined to bed until September last, when all her symptoms became aggravated. From September to Christmas she was in bed most of the time, and from Christmas until the present (January 30) constantly. For the last three weeks she has been under my care, having all the symptoms of acute pelvic peritonitis, with chills, fever and sweats, indicating the formation of pus. The symptoms of pus formation were present when I first saw her, but she improved in every way under the medical treatment instituted. Operation was advised after recovery from the immediate attack. This I believe to be the wisest course.

Pelvic peritonitis is almost always caused by salpingitis, and many recurrences are necessary, as a rule, to cause a fatal termination. Hence, unless there is evidence of the continuous formation of pus, with septic symptoms, or of a tendency of the peritonitis to become general, operation should be postponed until the patient has recuperated her strength, when she will be the less liable to suffer from profound shock.

The principles governing the management of inflammation of the uterine appendages are pretty well settled, nor does there seem much prospect of change without the discovery of new facts in therapeutics. When the inflammatory process has advanced to the formation of pus, either as pyosalpinx, abscess of the ovary, or suppurative peritonitis, operation and removal of the diseased appendages is demanded to save life. Spontaneous recovery is scarcely possible, save by the discharge of the pus through the skin, vagina, bowel or bladder —alternatives to exsection which are not to be entertained. The time for operation must be determined by the conditions present in each case.

The management of the appendages on the opposite side, when the inflammatory disease is unilateral, is still under discussion. Where the disease is of gonorrhœal origin, experience has shown that it is best to remove both appendages; because a gonorrhœal endometritis is left, which later infects the healthy tube and entails a second abdominal section for its removal. When gonorrhœa can be excluded with reasonable certainty, especially in young women without children, I would not remove the healthy tube and ovary, unless there be some particular reason for it.

Our patient has had the usual preparations for an abdominal section. For some days she has been on soft diet, has had daily baths, and has had the bowels well moved. This morning she had only a cup of coffee. The abdomen has been washed with soap and water, with water, with alcohol, and with

bichloride solution. She has also had a bichloride douche. The woodwork of her room has been thoroughly cleaned and washed with bichloride solution, 1-1000; and the room itself has been thoroughly aired. All the apparatus used about the operation has been similarly treated. This secures asepsis in our appliances. The instruments are heated to 290° F. for two hours. They are then put in trays and covered with boiling water. The gauze and sponges have been made aseptic after the formula used in this hospital. Before use they are freed from chemical antiseptics by washing in boiled distilled water. All the water used about the operation has been recently boiled, and has been either distilled or filtered before boiling.

The hands and arms of the operator and of the assistants have been thoroughly cleaned with soap and water and with a nail brush, then soaked in a saturated solution of permanganate of potash; and this has been removed by soaking in a saturated solution of oxalic acid. Finally they are washed in bichloride solution 1-1000.

The patient being now on the table we will again wash the abdomen with soap and water, and shave the region of the incision and the pubes. This adds greatly to the cleanliness of the field of operation and prevents detritus from becoming adherent to the pubic hair. The soapy water is now rinsed off, the field of operation is douched with bichloride solution and this again is washed off with boiled water. This gives us an aseptic field and aseptic appliances, with an entire absence of chemical solutions. From this time nothing but boiled water will be used for washing or douching, so that our patient will derive every benefit from antiseptic surgery and be in no danger of poisoning from chemical germicides.

As presumably the operation will be more than usually difficult the incision will be made relatively long—two and a half inches. The method used is to cut quickly down to the sheath of the recti muscles, which is likewise incised. (The slight hemorrhage can be disregarded as a rule. It usually ceases spontaneously, and besides it is better to dispense with pressure forceps as much as possible, as bruising the tissues does not favor primary union.) If the middle line is not apparent it is found by picking up the sheath of the rectus lightly and perhaps dissecting it to one side or the other. The posterior layer of fascia is now divided and the præ-peritoneal layer of fat exposed. Up to this time the tissues have been divided in situ. As we approach the peritoneum it is best to pinch up the layer of fat and elevate it before cutting. In this way there is no necessity for the use of the grooved director. The peritoneum is incised in the same way. Before opening the peritoneal cavity bleeding from the incision should be controlled.

On passing my fingers into the pelvis I find a large inflammatory mass on the left side and a dilated and adherent tube on the right side. The tube is freed by pressing the adhesions off with the pulp of the index finger, until it can be drawn up, when the remaining adhesions are rapidly stripped off and the tube and ovary are well delivered, to be tied off in the usual way. On the left side the mass is made up of tube, ovary, broad ligament and bowel. Separating adhesions along the broad ligament an intraperitoneal abscess is opened, containing about a half pint of pus. The tube can be plainly made out and freed, but it is not possible to find the ovary, which is imbedded in plastic exudate. As the abscess has been discharged, rather than prolong the operation with our patient somewhat shocked, I will tie off the tube and leave the ovary.

Next the peritoneum must be cleansed of this foul pus. For this purpose I will pour into the belly several pitchers of warm water and irrigate the pus sac by means of a Davidson syringe. The gravity flushing apparatus also affords a desirable method of douching the peritoneal cavity—perhaps the best. By removing the pus in this way there is little danger of sepsis or peritonitis. I have seen the foulest pus poured over the bowels by the pint, and yet when it was thoroughly washed away no trouble resulted. In this way but little sponging is required.

A short drainage-tube of medium size is now inserted. The tube should not reach the floor of Douglas's pouch, as injurious pressure might be made by it, and unnecessary pain would certainly be caused. The drainage-tube is the sheet-anchor of success in pus cases, and in all cases with many adhesions.

Deep and superficial stitches are now placed in position by means of the needle and carrier, and the sponges are counted to be sure that none is left in the abdomen. A nicer approximation of the sutures can be made by tying the superficials first.

A strip of gauze is now run down the

tube; powdered iodoform and boric acid (1-7) is sprinkled along the incision; gauze is laid over the region of the incision; a liberal layer of bichloride cotton is put in; and the Scultetus bandage is applied. Dressed in this way the tube is protected from atmospheric infection by the bandage and the cotton, and need be cleaned but twice daily, as a rule, because any excess of fluid is taken up by the gauze strip and cotton by capillary action.

The patient will now be put in bed and surrounded with warm-water cans, to recover from the shock and the ether.

[NOTE.—She made an uninterrupted recovery.]

SCURVY.—TYPHOID FEVER COMPLICATED WITH RHEUMATISM.[1]

BY JAMES B. WALKER, M. D.,

VISITING PHYSICIAN TO THE PHILADELPHIA HOSPITAL, ETC.

Gentlemen: The first patient I bring before you came into the house four days ago, and you see him to-day about as he came in. He is pale, anemic and sallow; his lips are pale, his ocular conjunctivæ yellowish and blue; the palpebral conjunctivæ are also pale. His gums are swollen along the borders of the teeth, and present a red line with some points of ulceration along their free edges with slight bleeding at one point. The odor from his mouth is offensive, and examining the interior of his mouth purplish fungous masses may be seen within the upper molars on both sides almost on a level with the crown of the teeth. On exposing his legs we find them covered with little spots, with here and there larger areas of discoloration, like bruises. The spots are small petechiæ, and resemble the petechiæ occurring in typhus fever, in that they are minute points. They are situated around the hair follicles, and are extravasations of blood in which there has been an absorption of the liquid portion of the exuded blood, the coloring matter remaining. Besides these spots, there is a swelling along the lines of the tibiæ. On the left side this consists of a node-like prominence evidently subperiosteal. On the right side the entire calf is hard and rigid, the leg feeling like a piece of wood wrapped in cloth, or like a cork leg. The surface of the limb is smooth. The entire limb is swollen; but the foot is not swollen, showing that this is due to some local effusion. The skin covering these swellings is yellowish and resembles that of an old bruise. Taken in connection with the other symptoms this case is very typical of a diseased condition. The prominences are due upon the one side to an effusion under the periosteum, and on the other side—where it is more extensive—to effusion into the intermuscular tissues.

Scurvy is a disease not often seen at the present time, owing to the use of canned vegetables and fruit juices, especially of the lemon and lime, in long cruises at sea. This man has been a worker in a brick-yard in Manayunk and is not a seaman. Previously he has always been healthy. His diet, while at work, consisted of bread, milk, coffee and soup, but no vegetables. He has had no headache, nausea nor vomiting. He denies specific history, and has not been addicted to the use of alcoholic liquors. He has simply been confined to a limited dietary and one without much variation for a long period. The absence of vegetables, especially of potatoes, from the diet is usually associated with scurvy. During the potato famine in Ireland the many who died, died of scurvy.

What, now, are the characteristics of this trouble? Upon examining the blood we find that it is deficient in coloring matter. My colleague, Dr. F. P. Henry, in an account of two cases which he reported last year, found that in one the number of red corpuscles had been reduced to 55 per cent. of their proper number, and in value in hæmoglobin to 30 per cent., thus greatly reducing the value of the blood in its oxydizing property. In the other case also it had been reduced to 39 per cent. There is, thus, in these cases a deficiency both in the number of the red corpuscles as in the quantity of hæmoglobin. There is no excess of the white blood corpuscles, but on the contrary these are also reduced in quantity. It is not, therefore, a case of leuco-cythemia, but a disease in which both of the corpuscular elements are very materially reduced. This occasions the marked anemia of scurvy. Sallowness of the skin is often associated with this anemia, as in this case, and in some cases other evidences of jaundice. The other features in the blood are an increase in the amount of fibrin and fibrin-forming material.

[1] Delivered at the Philadelphia Hospital.

The hemorrhagic tendency is a prominent characteristic of scurvy. Simple purpura presents the same characteristic, that is, a number of petechial spots; but as a rule they are larger and more maculated. In purpura there is no involvement of the gums, and, as a rule, no hemorrhagic tendency, though at times this is present. If we have a case in which there are petechial spots on the limbs, with no tenderness of the gums, we can hardly call it a case of scurvy. If a tooth is lost, the gum covering its site does not become fungous. It is only around the teeth that the fungosities are found. Upon pressing upon the borders of these gums I can express a purulent fluid from the little abscess cavities.

In the case before us I have had a study of the blood made by my friend, Dr. Judson Daland, who reports that the blood seems more diffluent than normal, issuing from the point pricked and spreading over the surface instead of gathering in a drop, as in normal blood. The blood corpuscles show decided changes in shape, presenting microcytes, megalocytes and poikilocytes: that is, red cells smaller than normal, others larger than normal, and others distorted and broken up, in decided and appreciable, though not excessive, degree. The blood count shows 1,900,000 red-blood cells per cubic millimeter—just 38 per cent. of what is normal (5,000,000 per cubic millimeter). The red-blood cells are not deficient in hemoglobin. This case presents, as you see, the characteristics of pernicious anemia, in the marked diminution in number and in the modification of the form of the red-blood cells. But as its cause is known and removable, the prognosis is favorable, despite the havoc already wrought.

Where may these hemorrhages exist? They may come from any mucous surface, from the gums, nose, stomach, kidneys, bladder or bowels. They may even take place from serous surfaces. Thus, we may have a hemorrhagic pleurisy. Some, among whom is Dr. Henry, query whether all cases of hemorrhagic pleurisies are not due to scurvy. In scurvy the digestion is poor, and constipation usually exists, except in those cases in which ulcerations exist in the large bowel, which are long in healing, and resemble in many respects the deep ulceration of dysentery.

The diagnosis of such a case rests entirely on the conjunction of a petechial eruption on the lower extremities with a swollen fungous condition of the gums. Of course, all such cases are associated with anemia. There is no other disease for which it could be mistaken. It has nothing in common with the eruptive diseases. There is usually no fever in scurvy. The prognosis is always favorable except in extreme cases in which large serous hemorrhages have occurred. Here the strength may be so reduced as to result in death. But even in these cases treatment is often promptly effective.

The treatment is largely dietary. The point is to build up the blood. Substances to supply its need must be administered. Potatoes represent a prominent feature in many cases, together with vegetable acids. The mineral acids are also of use. We should exclude salt meats from the diet and place the patient on fresh, succulent foods, varying the diet as much as possible. Lime-juice is a valuable addition. Some form of iron is indicated. Blaud's pills are vaunted in this disease as being preferable to the other forms of iron, but the tincture of the chloride is as serviceable in many cases, and I often prefer it because it is perhaps more readily absorbed; besides it is slightly astringent and slightly acid. Still, Blaud's pills are also readily assimilated. In cases in which there is a marked hemorrhagic tendency, with petechiæ upon the surface of the body, and hemorrhages from mucous and serous surfaces, aromatic sulphuric acid combined with some preparation of iron is of great value. At times abscesses form in the exudations which take place into the limbs, but this is rare. Usually under treatment these swellings rapidly disappear. In many cases an anemic murmur is heard over the base of the heart, especially after exertion, and attacks of syncope are common in this disease.[1]

Typhoid Fever with Rheumatism.

The next patient is a driver of an express wagon. His father is living and 85 years old; his mother is dead; his brothers and

[1] NOTE.—Two weeks later. An examination was made this day, at my request, by Dr. Daland, who reports that an average of 128 squares counted gave 3,435,000 red corpuscles per cubic millimeter,—a very notable increase over the count of two weeks ago. The red corpuscles were of good color and showed only an occasional megalocyte; and, though many microcytes were present, there were much less numerous than at the previous examination. The contour of the corpuscles was better preserved, and there were very few misshapen cells. The coagubility of the blood was increased.

sisters are healthy. He has had no rheumatic history, and has never been sick. He has always been a hard worker. He was admitted on April 11 with pain in his side, which he said was due to a strain in carrying a heavy express package. Two days before his admission he felt sore and weak. On admission no injury could be found, nor were his joints swollen, but he seemed weak and dull. On the second day he was slightly delirious, with tenderness over the entire abdomen. On the evening of the second day he had an epistaxis. His pulse was distinctly dicrotic. His tongue, in appearance, approached that of typhoid fever. On the morning of the third day he complained much of pain in his legs and arms, but there was still no swelling. By the evening there was marked swelling of both knees and the right wrist, and a soft systolic bruit could be heard over the mitral area. Epistaxis also occurred this day and he still had pain in his abdomen. His left arm and shoulder-joints now became successively involved. There was no eruption; he was constipated; and there has been marked sweating throughout.

Here is an interesting case. He entered with pain attributed to muscular effort. His temperature on admission was 104⅘°; in the evening at eight o'clock it was 103⅘°. On the following day he was delirious. His abdomen was as tender in the left iliac region as in the right, and from time to time he had a voluntary stool. His temperature was lower in the morning and high in the evening, but until the morning of the fifteenth day was constantly above 100; never reaching the normal for nineteen days except in the periods between the regular times of taking. It is not a rare thing in typhoid for the temperature to vary in the intervals two or three degrees, and typhoid fever charts, where the temperature is recorded every two hours, will often show a constantly varying fever. To look at this chart, I should say, with the history we have given, that one is justified in concluding that typhoid fever has been existent here, in spite of the other symptoms recorded. Rheumatism is a disease of slight fever. While acute rheumatism is synonymous with rheumatic fever, still the fever is not high, and the rise is usually proportionate to the number of joints involved. This man was admitted with no joint involvement, but with a higher temperature than at any subsequent time. This shows very clearly that something else existed in his system inducing fever. He has been accustomed to muscular exertion, and this is associated with perspiration. He was, therefore, by his occupation, in just the condition, to take a chill and get an attack of rheumatism. But before there was any involvement of any joint, before the rheumatic poison had stirred up any inflammation at any point, he had a higher fever than at any subsequent period. We may say, then, that he had a febricula due to the development or retention of certain poisons in his system, or else that he had typhoid fever. The Germans call "typhoid" all cases of fever which cannot be otherwise explained, and this method of diagnosticating a typical typhoid fever, by exclusion, is the only safe one. Any fever, continuing as this has done, which has no other appreciable cause, may be safely classed as typhoid in our climate.

This patient, then, has had typhoid fever complicated with rheumatism. With the new involvement of his joints there was no marked temperature exacerbation except once. His pulse has varied from 90 on admission to 120 on the second day; but has been running most of the time below 100. This is also suggestive of typhoid fever. It is remarkable how slowly the pulse weakens in typhoid fever. The two points in connection with this man's pulse which assist us in our diagnosis are its dicrotism from early loss of vaso-motor tone due to the presence of the typhoid poison, and its comparative slowness. Rarely does the pulse in typhoid fever reach above 108, though there be other marked signs of depression. This is strongly in contrast to the other fevers, where it rapidly rises to 140–160 or even 200 in a child. The presence of constipation is not of any value to us. Very often it is present in typhoid fever. His tongue is coated with a yellowish fur, but the lips and edges are clean and pale. Projecting above the fur can be seen the fungiform papillæ. This is not the typical typhoid tongue, but we must remember that the man's temperature is now almost normal, and has been so for several days.

The treatment of the rheumatic element occurring in typhoid fever should be largely local. The joints should be wrapped in flannel which may be saturated with a solution of nitre, to reduce the local heat. Salicylic acid or preferably salol, which is not so depressing and is better borne by the stomach, may be administered internally.

COMMUNICATIONS.

HYSTERECTOMY FOR LARGE SUB-PERITONEAL FIBROID.[1]

BY W. E. WILSON, M. D.,

PULASKI, TENN.

On April 25, 1889, I was called upon by my friend, Dr. G. D. Gray, of Giles County, to perform an operation upon a patient of his, Eliza W., colored, 55 years old, for an abdominal tumor, the exact nature of which had not been clearly determined. Accompanied by several of my medical friends, we drove into the country to meet Dr. Gray, and to render him and his patient all the help we could. We found our patient in a nice, clean room, but very dark and ill-suited for the work before us. She was in fine spirits and fairly good condition, though greatly reduced in flesh and strength. On examination, a large, smooth, symmetrical tumor was found, about the size of a seven months' gravid uterus. Upon consultation it was agreed that an operation was necessary, the character of which could only be definitely determined after the exploratory incision was made. We were poorly equipped for such an operation, and each physician present contributing something to the armamentarium, and rendered invaluable assistance by suggestions and manual help. We proceeded at once to operate.

We were compelled to place the table before an open door, it being the only light available in the house. Our little woman, who weighed less than one hundred pounds, mounted the table with such marked fortitude, that we were inspired with hope of success. After shaving the pubic region, and thoroughly cleansing and disinfecting the abdomen, the ordinary incision was made, which rendered the diagnosis clear, and demonstrated the absolute necessity of hysterectomy, a large fibroma being found growing in the posterior uterine wall. The incision was extended down to the pubes, and to about two inches above the umbilicus, and through it the tumor was drawn with considerable difficulty. The adhesions between the tumor and the parietal walls and abdominal viscera were extensive and firm, requiring considerable force to break them down. Some points bled quite freely, though in no case was it deemed necessary to apply a ligature.

The right broad ligament was ligated and detached, but the left was so closely identified with the tumor that it could not be separated easily, and was taken into the clamp with the cervix. The clamp being placed as high as practicable, and being made tight, the body of the womb was severed by a few strokes of the scalpel, just above the internal os. The stump was then thoroughly seared by means of a Paquelin cautery, a double ligature was passed through it below the clamp and each segment was securely ligated. The clamp was then removed and the cavity was carefully cleansed of blood by means of sponges wrung out of hot carbolized water. We did not use irrigation, and avoided the introduction of even the carbolized water into the abdominal cavity as far as possible. The stump was then stitched into the lower angle of the wound with two deep silver sutures, by the side of which an ordinary perforated drainage-tube was passed well down into Douglas's *cul-de-sac;* the remainder of the wound was closed with wire and silk sutures. The parts were then thoroughly dried, and the wound dressed with dry carbolized gauze and cotton, and a bandage was applied. We put our patient to bed with many misgivings in our minds in regard to the result.

After the nausea and prostration incident to the chloroform and shock of the operation had passed off, there was not an unfavorable symptom. The temperature was never higher than 99½° F., except on the second day, when it reached 101°, and the pulse after the second day was never as high as one hundred per minute. The wound above the drainage-tube healed perfectly by first intention, there being no appearance whatever of pus. There was little or no discharge from the tube until the sixth day, when a puro-sanguinolent discharge made its appearance, containing numerous small partially decomposed clots of blood. This soon assumed a healthier aspect; by the eighth day it was like ordinary laudable pus, and it gradually diminished in quantity. Day by day I withdrew the tube a little, until it was finally removed on the eleventh day. I did not wash out the cavity at any time, as there was never the slightest evidence of septic trouble.

During all these days the patient had very little tenderness and less pain, and expressed

[1] Read before the Tennessee State Medical Society, in Memphis, April, 1890.

herself as feeling greatly relieved by the removal of the tumor. On the eighteenth day I removed the only two remaining sutures, which had been passed through the stump, when the ligatures came away, bringing with them, to my great gratification, the remnants of the stump. From this time my patient progressed rapidly to perfect recovery.

After she was well and able to do her housework, she disregarded my positive instructions, and left off the abdominal support; in consequence she has a small hernia. At this time, almost twelve months after the operation, she is strong and well with the exception of the hernia, and, according to her statement, is in better health, and can do more work, than at any time in fifteen years.

There is little to be gained from the report of this case, except encouragement to those who may be similarly forced by duty to perform so grave an operation when the surroundings are not everything they might wish. Poorly performed as this operation was, and unpromising as were the surroundings, it was undertaken purely from a sense of duty, and resulted in life and health to this poor sufferer.

SURGICAL CASES OCCURRING IN THE PRACTICE OF A COUNTRY PHYSICIAN.[1]

BY T. J. HAPPEL, M. D.,

TRENTON, TENN.

Feeling that it is profitable at times to review work done, and knowing that reliable statistics in surgery can be obtained only by reporting alike favorable and unfavorable results, I have ventured to call your attention to a consideration of most of the more important surgical cases that I have treated for the past several years. An investigation of such work ought to be, to some extent, profitable to the general practitioner, as he knows not when he may be forced, in some emergency, to take up the tourniquet and scalpel.

I would state at the outset that, whilst believing cleanliness is next to godliness, cleanliness is conducted in my hands on the general principles of antiseptic surgery, ignoring its minute details. My general method of procedure is to cleanse the parts thoroughly, first with hot water, and then with carbolized water. My instruments are carefully freed from the vaseline with which they are kept constantly coated, and are then immersed in a bath of carbolized water (f℥iij to Oj.) I prefer the carbolized water to the bichloride, from the fact that it does not tarnish my instruments. My sponges, after being cleansed, are immersed in a vessel of hot bichloride solution, 1 to 2,000, which is used during the progress of the operation. No spray is used. When the operation is finished, unless forced to haste in dressing, I delay closing the wound as long as possible, so as to check all hemorrhage as completely as can be done. When ready to coaptate the edges, I use a Hagedorn needle, and usually, iron-dyed silk, and then apply over the closed edges sublimated cotton, wetted thoroughly in a 1 to 2,000 bichloride solution; over that I apply a layer of dry cotton of the same kind, and hold it in place with bandages or adhesive plasters, as the case may demand. This dressing I disturb as little as possible, never changing it till suppuration points to the necessity for so doing. When a new dressing is needed, the wound is thoroughly cleansed again, and dressed in the same way as at first. This is the extent to which I use antiseptic precautions, or practice antiseptic surgery. I cannot boast of much of the poetical surgery of the present day, when "not a drop of pus is formed, and no departure from normal temperature takes place," for in most of my cases pus does form, and there is some elevation of temperature.

The nearest approach to what I might term "ideal surgery" that it has been my lot to deal with, was one of my latest operations—the removal of what appeared to be a cancerous degeneration of a nævus or mole in an old woman, nearly ninety-three years old. This tumor, which had attained to the size of a duck's egg, was growing on the left temple and had developed rapidly within less than six months. It was removed under chloroform on April 21, 1889, and the patient was dismissed cured on May 5. There was no elevation of temperature, and less than a quarter of a teaspoonful of pus—but pus there was.

If it were not for the high standing and the known veracity of many of the operators, who state the non-existence of pus, etc., I should be much inclined to doubt the truth of many of the statements made

[1] Read before the Tennessee State Medical Society, April, 1890.

in reference to surgical operations in which the full history is not honestly and fairly reported. There are points that frequently remind one of Rip Van Winkle's swearing off from drinking. The small secretion of pus and the slight elevations of temperature "are not counted." We are not exactly willing to lessen the otherwise brilliant result of some capital operation by reporting the presence of pus and an elevation of temperature. I am not an unbeliever in all such reports, but I am fully convinced that many are exaggerated, and in many cases fatal results and terminations never reach the glare of the noon-day's sun. The successful cases are all reported, but the fatal ones are forgotten. The accurate history of antiseptic surgical operations could only be obtained by a report from surgeons, honestly and candidly giving all their cases for a given length of time—stating their mode of operating, and the after-treatment, and the result in every case, let that result be a success or failure.

In the first year of the existence of the Gibson County Medical Society, in an article entitled "Antiseptic Surgery," I reported all of my more important surgical cases up to that date, June, 1884. In that report I noted as follows: One lithotomy; one amputation of the thigh in its lower third; one Symes' amputation; two amputations in lower third of leg; one amputation of leg in upper third; two amputations of the arm, one just above the elbow, the other within two inches of the shoulder-joint; several amputations of fingers and toes; one amputation of the breast for cancer; three operations for lacerated perineum; one for bilateral laceration of the cervix uteri; one excision of the lower half of the ulna for an exostosis, and one resection of six inches of the middle of the radius for a comminuted gunshot wound; two cases of hare-lip; twelve cases of fistula in ano; one fibroid polypus; one mucous polypus; several fatty tumors, one from an old lady sixty-eight years old; one case of friction-burn in a man sixty years old, and numerous cases of circumcision. In every one of these cases the result was everything that could be desired, so far as recovery was concerned. In the case of amputation of the breast for cancer the operation was a success, but the disease recurred internally and the patient died within six months. (See MEDICAL AND SURGICAL REPORTER, April 11, 1885, page 449.)

Looking at my case-book since that time, I find a number of important cases to which I would briefly invite your attention. In every case the importance of cleanliness is impressed upon patient and nurses. In the first half of the cases, the antiseptic agent used was carbolic acid, but the latter half have been, as a rule, treated as suggested in the first part of this paper. I am not prepared to decide on the relative merits of the corrosive sublimate solution as compared with carbolic acid. I must confess that I have seen but little difference in the results obtained in the use of the two agents. Fashion now says the bichloride is the antiseptic agent, *par excellence*. For patients who have illiterate and careless nurses, I prefer to use carbolic acid, as its odor proclaims its presence, and it is easy for them to understand and act upon the directions to add one teaspoonful to the pint of water for dressing purposes. For abdominal surgery, to the bichloride is awarded the first place; but it is not my intention to discuss the relative merits of any of the agents now in use. Suffice it to say that their name is legion, and their modes of being used varied.

Among the cases operated upon, I would invite your attention to the following: Dec. 4, 1884, H. P., colored male, about sixty years old; a case of moist gangrene of the leg, due to embolism. When seen the line of demarcation had been established and there was no question as to what should be done. The leg was removed in the upper third. The patient's reaction was slight, and there was a very slight disposition on the part of the anterior flap to slough. The administration of tonics, cleanliness and careful feeding steadily improved the patient, and in less than two months he was discharged cured, and is now well and strong.

June 6, 1887, J. J., twenty-one years old, white male; his hand and half of his forearm had been torn off by a wheat thresher; the remaining part of forearm so much lacerated by the spikes of the thresher as to leave no tissue suited to cover the stump. The arm removed just above the elbow by flap operation. The condition of the patient was as good as could be desired. More than half the wound united by adhesion. The dressings were changed on the fourth day; on seventh day the stitches were removed. It was found that a fly had deposited its eggs on the wound at night, while nurses dozed; and about a dozen maggots were removed. The dressing was renewed and in another

week I dismissed the patient. The temperature did not go over 100° F., and pulse not over 90 per minute.

On September 7, 1888, I amputated a negro's arm for gunshot wound received four days previously. The patient, when first seen, was found to have a comminuted fracture of the humerus and great laceration of the muscular tissue, the result of a load of squirrel shot. The wound had not been dressed from the date of its reception until the time of my visit. A most foul, offensive odor pervaded the negro's hovel, and when the clothes were removed, maggots were seen crawling in every direction. The arm was removed just one inch below the shoulder-joint. The shock was profound. Belladonna, digitalis and nux vomica were used hypodermically. The wound was thoroughly cleansed with carbolized water and dressed with carbolized cloths. Cleanliness was enjoined, and abundant feeding. In two weeks the patient was walking around.

Jan. 2, 1889, M., white male, about 40 years old, had had his hand cut to pieces in a gin and his arm almost torn off. I amputated at the lower third of forearm. The patient's recovery was slow; the wound had a decided tendency to slough, and numerous small spiculæ of bone were discharged. The arm even now pains and annoys the patient. In this case antiseptic precautions were more carefully resorted to than in any of the preceding cases, and yet suppuration was profuse, the odor of the discharge offensive, and recovery, as has been already stated, slow.

In December, 1884, I amputated a thumb which had been almost torn off by a rope, the adjacent tissues being burnt by friction. In June, 1885, I amputated the second and third fingers of a cotton factory employé. The fingers had been mangled by cog-wheels. In both cases there was much suppuration, but finally good recoveries were made.

In July, 1885, I amputated the little toe of both feet in one patient at one time. Here union took place with scarcely a drop of pus forming, but the wounds being injured by the patient's walking too soon, slight inflammation set up later on, with some suppuration; however, a rapid recovery resulted. In September, 1885, I removed an epithelioma of the lower lip in a young man 23 years old, removing a V-shaped piece of the lip 1½ inches along the lip and 1 inch deep. Union by first intention resulted, with no return of the disease up to the present time. On June 25, 1888, I performed the same operation on a man about sixty years old, with the same results. The closest inspection is required in both cases to decide the part of the lip operated on.

On June 26, 1888, I removed an encephaloid cancer from the back of a man 40 years old. One month later the axillary glands were removed from the same patient, and about six weeks later a second growth in the cicatrix where the first had been removed; at the same time an effort was made to remove one growing apparently at the base of the ensiform cartilage, but when cut down upon it was found to grow from some of the internal organs, and simply to protrude at that point. At this point the wound was closed, and the patient sent home with the assurance that he needed no further operations. His right lung rapidly broke down, and he died within two months from the date of the last operation. The external wounds all healed rapidly.

On March 27, 1887, I amputated a breast for a scirrhus in a woman fifty years old. The father of the patient had died of epithelioma of the lip. The wound healed rapidly, but at the expiration of nine months the axillary glands began to enlarge. These were removed the following April. This wound healed kindly, but in the following September the disease returned in the axillary cicatrix and the patient rapidly succumbed, having lived about eighteen months after the first operation. In the two last-named cases no hopes of final recovery were held out to either patient. They were simply offered relief, which they obtained up to a short while before death.

On October 2, 1887, I treated a case of epulis in a woman about thirty years old. The growth removed was as large as a walnut, and occupied the space which had been filled by two inferior molars. The patient recovered without an unfavorable symptom. On October 21, 1887, a lacerated perineum was operated on; the woman being a primipara, twenty-five years old and very fleshy. The operation was performed at the end of the third week and was successful. October 18, 1888, I saw, in consultation with Dr. J. C. Moore, a case of traumatic synovitis of the knee-joint. The patient was of a scrofulous diathesis, and, when first seen, was almost in a hopeless condition. Free drainage was made, and the

joint washed out thoroughly with a bichloride solution, 1 to 2,000, with some apparent benefit; but in spite of the most careful antiseptic treatment of the joint, the patient died from septicemia. Tonics were administered; extension and counter extension was made and the nutrition closely watched, but all to no avail.

On April 9, 1887, I treated a case of necrosis of the middle third of the tibia in a boy 8 years old. In the upper and lower thirds the cancellous structure was in a carious condition. The entire diseased portion was removed, leaving nothing of the bone except the upper and lower epiphyses, and the shell of the dense structure in the upper and lower thirds. Carbolized washings and dressings were used and the patient rapidly recovered, being confined to his bed a few days only. In two cases of caries of the tibia, one operated February 23, 1885, and the other July 18, 1887, nearly all of the cancellous structure was removed in both cases. The dressings were the same as in the preceding case, and the patients were kept saturated with tonics of iron, arsenic and cod-liver oil. All of the patients recovered.

On May 27, 1885, a case of scrofulous osteitis, followed by necrosis of a small portion of the inner surface of the lower extremity of the femur, in a boy four years old, came under observation. The diseased portion was exposed and the shell of bone was removed; thorough drainage was established and kept up; carbolized washes were freely used; the patient was kept on tonics and alcohol in divers forms, and finally made a most excellent recovery and is now a robust boy. Sept. 13, 1887, a compound comminuted fracture of the fibula and tibia was treated with rest and antiseptic cleanliness, carbolic acid being used as the agent. There was at no time any elevation of temperature nor increase in the pulse rate. The man has now as good a limb as the unbroken one, with almost no deformity. In Nov., 1883, I successfully treated a compound, comminuted fracture of the tibia, caused by the kick of a horse. I find in my records two cases of simple fracture of the thigh, two of the tibia, six of the arm and forearm. One fibro-cystic tumor growing from the cervix uteri, which had originally filled the whole vaginal canal, was removed Dec. 6, 1887. Three cystic tumors of the scalp were removed from one old lady, at one sitting, without chloroform. Several other cystic growths have been removed during the time covered by this paper, and in no case has there been any return. Three fatty tumors of medium size were removed. Two cases of hydrocele have been treated, both by tapping, drawing off the liquid, and then injecting with equal parts of iodine and glycerine, to which about 20 per cent. of carbolic acid had been added. Both cases recovered and in neither has there been any return. Two cases of fistula in ano were treated with the knife, the fistulous tract being laid open into the rectum. Both recovered in a short time. One patient is now under treatment, who is recovering very slowly. (This patient finally died.)

On Dec. 14, 1884, I was called to see and treat, in conjunction with Dr. Stephenson, of Dyer, a case of friction burn, in which the young man had been caught between the beam and inclined wheel of a cotton gin, and where the beam had held him down in a space not wider than two and a half or three inches, and had revolved over the lower dorsal and lumbar regions, causing a most extensive friction burn. The skin and much of the muscular tissue over an oblong space of six by ten inches sloughed out, exposing the muscular tissue, some of which also sloughed. Under carbolized dressings the patient rapidly recovered and is now well, without any deformity whatever.

On Dec. 12, 1887, I was called to treat a gunshot wound of the forearm, in which half of the muscular tissue on the anterior aspect had been torn off by the discharge, at short range, of a gun loaded with bird-shot. Fortunately the arteries and bone were uninjured. The torn shreds of skin and muscular fibre were chipped off and as much as possible of the powder burn and fragments of clothing was removed. The arm was thoroughly cleansed by washing it in hot carbolized water and then dressed with carbolized jute. Profuse suppuration ensued, but the patient rapidly recovered and now has a useful arm. I saw and watched one fatal gunshot wound, where one ball struck the patient posteriorly and glanced along the sixth rib, entering the spinal column through the forearm and imbedding itself longitudinally in the cord itself, producing complete paraplegia. Death ensued on the eighth day in this case.

I find four or five cases of operations for enlarged tonsils; five cases of circumcision. My book shows about two dozen cases of internal hemorrhoids, all treated by hypodermic

injections of carbolic acid, with recovery in every case. In not more than two of the cases was there any sloughing, the cure being generally accomplished by a mummifying process. I have never been compelled to treat a case a second time, and know of but one case in which after the lapse of five or more years there has been any re-development: a state of affairs in marked contrast with the operation by ligature, or clamp and cautery. There are seventeen cases of rectal ulcerations in my list of operations. Of these, one was tubercular, preceded by ulceration of the whole alimentary canal. In this one case, while there was for a time marked improvement, later on the patient failed rapidly and died. I would remark that the prognosis was very unfavorable in this case when first seen, about six weeks before her death. The other cases all recovered promptly. Some of these cases were reported by me in a paper read April, 1888, at the State Medical Society, Knoxville, Tenn. For details of treatment reference is made to that paper.

I have now under observation one case operated upon for caries of the superior edge of the acetabulum, and one in which a small growth with a cancerous history was removed from the left temple of a woman nearly seventy-five years old. I desire to call your attention to this case and the similar one referred to in the first portion of this paper, where a similar operation was made for a like growth located in the same temple of a woman nearly ninety-three years old. This is probably the oldest person ever operated upon in the State of Tennessee, and was followed by a case almost a duplicate of itself in a woman of advanced years, namely, about seventy-five years old.

In all my operations I use chloroform. Theoretically, ether may be safer, but much depends upon the manner in which the anæsthetic is used. Both are unsafe in careless hands: chloroform being much more so than ether; but when the respiration and pulse are carefully watched, I consider chloroform as safe as ether. Of course, no one can operate and administer the anæsthetic at the same time. In my hands I find anæsthesia much more rapidly produced by chloroform, and much less nausea following its use. In mixing anæsthetics, I have had no experience and less faith; as, owing to the different rates of volatilization of the ingredients, the patient uses but one at a time in reality. With other agents than chloroform and ether I am not acquainted, and could only speak of them theoretically. In my opinion, one must choose ether or chloroform. Of course in minor surgery, for local anæsthesia cocaine is to be used in such strength as the occasion demands.

To sum up the results of my surgical work, my records show: Six amputations of the lower extremities; five amputations of upper extremities; seven amputations of fingers and toes; two resections; five operations for caries, or necrosis of the long bones; four cases of perineorophy; one case of tracheloraphy; two operations for epithelioma of the lower lip; two for hare-lip; one for stone in the bladder; one for epulis; a large number of cases of anal fistula; and many cases of rectal ulcers and internal hemorrhoids, with recovery in every case except one case of tubercular ulceration of the rectum. I have twice amputated a mammary gland for scirrhus, with recovery in both cases from the operation; but death in one case from recurrence in less than six months, and in the other within less than two years. A similar result obtained in the encephaloid cancer. The fatal case of synovitis of the knee-joint could not at the time I saw it have been expected to result otherwise.

The results of my surgical work are before you. I do not see where I could have expected them to be better, and yet, as I stated in the outset, I have seen but little of the poetry of surgery. I am a believer in antiseptic surgery so long as it forces upon us greater cleanliness, but I am not yet fully satisfied that the micro-organisms which are supposed to be destroyed by our antiseptic lotions, etc., are the causes of the disease. They may be simply sequences. The disease may furnish them suitable pabulum on which to grow, and they develop as a result of the disease. Perhaps, after all, the antiseptics only prevent the furnishing of this *tertium quid* on which the bacilli and micrococci grow and thrive.

Hygiene in Germany.—During the past few years the subject of hygiene has received marked attention from the German Government. In nearly all the leading universities there are now hygienic institutes, thoroughly equipped in every way. Recently the new Hygienic Institute in the University of Halle was opened. The Institute has a lecture-room and also special chemical, physical and bacteriological laboratories.

REMOVAL OF A TAPEWORM TWENTY-FOUR YEARS IN THE BOWEL.

BY SAMUEL LILE, M. D.,

TRINITY, ALA.

I report this case, as it has points of considerable interest, as regards the diagnosis of tænia and the means adopted for its removal, hoping that it may be of benefit to other members of the profession.

George C., negro, 54 years old, of exceedingly good moral habits for one of his race, has lived in my section of the country for twenty years, and had enjoyed remarkably good health until August, 1889, when he had a slight pneumonia. Two months later he had an attack of acute gastro-enteritis, from which he made a fair recovery. He did not apply to me again for medical aid until April 24, 1890. I then found him very much frightened, having just vomited some small clots of blood. After examining him and seeing no cause for special alarm, I began to make my prescriptions to meet the trouble, when I was interrupted by the patient, who said: "Doctor, I have, for a long time, been passing a strange-looking worm from my bowels, pieces pass every day or two; and whenever I fail for any length of time to pass a piece I suffer from sick stomach and a feeling of weakness."

I then began to inquire after the nature of the worm; when it was first seen, etc.; and he said: "In 1866, I passed a piece of a flat worm, knuckled together like a rattlesnake's rattle, which measured two feet in length. This alarmed me considerably, so I went forthwith to see a doctor, who told me that there was no occasion for alarm, as it would never hurt me as long as my health was good. Short pieces or joints from one-half inch to one inch long continued to pass every few days until 1876, when I passed a piece eight feet long. Still I felt no alarm, recollecting what my former family physician had told me ten years before. After this, short joints would come out while I was at work and without my knowledge, until I would find them in my clothes. Just after you dismissed me last Fall, after that attack of bowel trouble, I got a piece three feet long; but still, relying on what my physician told me in the spring of 1866, I felt not the least disconcerted. But I have seen no sign of it now for two weeks, and I thought maybe that was the cause of my present trouble, and I had better tell you about it."

I then ordered an active purge, gave something to control the nausea and directed that any and all pieces of said worm that might escape be saved and sent to my office. The next day the man sent me a half dozen separate joints of a fine specimen of a tapeworm. I began at once to devise some means to dislodge the monster, the like of which I had never attempted before.

Pumpkin seed being the simplest and most available remedy, I decided to try them. I directed the patient to make a strong tea from the seeds, and to use it instead of water. After having used it for four days, I made an emulsion as follows:

Take two ounces of pumpkin seed, put into a mortar and pound, hull and all, into as fine a powder as possible. To this add half a pint of water and let it stand all night. I then ordered the patient to eat no supper or breakfast, but to take the emulsion instead of the last-named meal. Two hours later I ordered him to take two ounces of molasses and two hours later I gave him one ounce of castor oil with one drop of croton oil added. In another hour a monstrous tapeworm, three-fourths of an inch wide at the broadest part and fourteen feet four inches long was in our possession, having been completely dislodged, head and all, and passed ribbon-like and unbroken, not a single joint misplaced.

This is a case of very long standing (24 years) and one in which a very simple remedy proved remarkably successful.

I hope that it will prove as interesting to some others as it has been to me.

HOSPITAL NOTES.

WOMAN'S HOSPITAL, PHILADELPHIA.

SERVICE OF DR. JOHN B. ROBERTS.

Rules to be Observed in Operations.

The value set upon strict adherence to the principles of antiseptic surgery is indicated by the following rules which regulate the conduct of operator, assistants and nurses.

After wounds or operations high temperature usually, and suppuration always, is due

to blood-poisoning, which is caused by infection with vegetable parasites called bacteria. These parasites ordinarily gain access to the wound from the skin of the patient, the finger nails or hands of the operator, or of his assistants, the ligatures, sutures or dressings. Suppuration and high temperature should not occur after operation wounds, if no suppuration has existed previously. Bacteria exist almost everywhere as invisible particles in the dust; hence, everything that touches or comes into even momentary contact with the wound must be germ-free; technically called "sterile." A sterilized condition of the operator, the assistant, the wound, instruments, etc., is obtained by removing all bacteria by means of absolute surgical cleanliness (asepsis) and by the use of those chemical agents which destroy the bacteria not removed by cleanliness itself (antisepsis).

Surgical cleanliness differs from the housewife's idea of cleanliness in that its details seem frivolous because it aims at the removal of microscopic particles. Stains, such as housewives abhor, if germ-free, are not objected to in surgery.

The hands and arms and especially the finger nails of the surgeon, assistants and nurses should be well scrubbed with hot water and soap by means of a nailbrush immediately before the operation. The patient's body about the site of the proposed operation, should be similarly scrubbed with a brush and cleanly shaved. Subsequently the hands of the operator, assistants and nurses and the field of operation should be immersed in or thoroughly washed with corrosive sublimate solution (1-1000 or 1-2000). Finger-rings, bracelets, bangles and cuffs worn by the surgeon, assistants or nurses, must be removed before the cleansing is begun; and the clothing must be covered with a clean white apron large enough to extend from neck to ankles and provided with sleeves.

The instruments should be similarly scrubbed with hot water and soap, and all particles of blood and pus from any previous operation must be removed from the joints. After this they should be immersed for at least fifteen minutes in a solution of beta-naphthol (1-2500) which must be sufficiently deep to cover every portion of the instruments. After cleansing the instruments with soap and water, baking in a temperature a little above the boiling point is the best sterilizer. During the operation the sterilized instruments should be kept in a beta-naphthol solution and returned to it when the operator is not using them.

Sponges should be kept in a beta-naphthol or a corrosive sublimate solution during the operation. After the blood from the wound has been sponged away they should be put in another basin containing an antiseptic solution, and cleansed anew before being used again. The antiseptic sutures and ligatures should be similarly soaked in beta-naphthol solution during the progress of the operation.

No one should touch the wound but the operator and his first assistant. No one should touch the sponges but the operator, his first assistant and the nurse having charge of them. No one should touch the already-prepared ligatures or instruments except the surgeon and his first or second assistant.

None but those assigned to the work are expected to handle instruments, sponges, dressing, etc., during the operation.

When any one taking part in the operation touches an object not sterilized, such as a table, tray or the ether-towel, he should not be allowed to touch the instruments, the dressings or the ligatures until his hands have been again sterilized. It is important that the hands of the surgeon, his assistants and nurses should not touch any part of his own or the patient's body; because infection may be carried to the wound. Rubbing the head or beard or wiping the nose requires immediate disinfection of the hands to be practiced.

The trailing end of ligatures and sutures should never be allowed to touch an assistant or surgeon's dress or to drag upon the operating table, because such contact may occasionally, though not always, pick up bacteria which may cause suppuration in the wound. Instruments which fall upon the floor should not be used again until thoroughly disinfected.

The clothing of the patient, in the vicinity of the part to be operated upon, and the blankets and sheets used there to keep him warm should be covered with dry sublimate towels, and all dressings should be kept safe from infection by being stored in glass jars or wrapped in dry sublimate towels.

Removal of Freckles.—Freckles are said to be readily removed by a lotion of equal parts of lactic acid and glycerine.

FOREIGN CORRESPONDENCE.

PARIS LETTER.

On Scrotal Pneumoceles.—Treatment of Endometritis by Curetting the Uterus.—The Galvanic and Faradic Electrical Treatment.—Its Use in Muscular Atrophy.

At one of the last meetings of the Academy of Sciences, Prof. Verneuil made an interesting communication on scrotal pneumoceles, of which the following is an extract. The presence of infiltrated or collected gases which sometimes occur in the scrotum produces either a diffuse or a circumscribed swelling. The pathognomonic symptom of such an affection is a sonorous percussion sound with or without gaseous crepitation. The author does not think that the denomination of emphysema of the tunica vaginales is a sufficiently expressive term for it, and proposes to call it scrotal pneumocele.

Several varieties of this affection are to be met with, and differ according to the location in which the gases are situated; constituting either a sub-cutaneous pneumocele or a vaginal or serous pneumocele. They also differ according to the chemical composition of the gas. In the aeriform pneumocele the gas is exclusively atmospheric air. In the bacterial pneumocele the gases are made up of the elements of the atmospheric air plus the gases of putrefaction.

Scrotal pneumoceles are also divided according to the way in which they react towards the general economy into, 1, the benign pneumocele, and, 2, the septic or malignant pneumocele. There are two principal forms, however,

1. The scrotal, aeriform, benign pneumocele, whatever its seat—sub-cutaneous or vaginal.

2. The malignant bacterial scrotal pneumocele; which occupies the connective tissue meshes, or the peritesticular serous membrane.

Scrotal pneumoceles are never idiopathic; they are always preceded by a local lesion or due to a distant lesion. The local lesions are either wounds of the scrotum with introductions of atmospheric air; hydroceles or hematoceles, in which the appearance of the gas seems to be spontaneous; or punctures made with a trocar.

The distant lesions may be: Wounds of the air passages and adjoining cavities of the head and neck; wounds of the intestine in the abdomen or of the ano-rectal region or hernial region; wounds, whatever may be their seat, which are complicated by aerial or bacterial emphysema, the gases of which can become infiltrated into the scrotum; finally, all acute inflammations situated near the genital urinary apparatus of man.

In sub-cutaneous, aeriform or vaginal pneumocele, the accidents remain local and without complication; and hence the prognosis is a good one, and the treatment consists in making simple punctures. In the bacterial form, the phenomena observed are those of acute inflammation, grave inflammatory œdemas, even gaseous gangrene; and the prognosis is a very grave one. As to the treatment, it must be applied as early as possible and very vigorously. Very large incisions are required, even excisions of part of the scrotum, or castration in cases of pneumo-hematocele of long duration and complicated.

Dr. Bouilly presented before the *Societé de Chirurgie* the result of his experience in treating endometritis by curetting the uterus. He presented a series of 81 cases—69 of them having been seen several months after the operation. Simple endometritis or endometritis complicated by slight inflammation of the uterine appendages has been treated in that manner. All cases in which there was an ectropion of the neck of the uterus or uterine fibromas, were left aside. The symptoms observed in the patients who were treated by curetting were: metrorrhagia and more or less abundant mucous or muco-purulent discharges and variable pains. All patients were anæsthetized with chloroform. The cervix is always previously dilated with iodoform luminaria digitata tents: a small one the first day, followed by a larger on the following; and on the third day the operation has always been possible. Sims's curette is the one used. It is pressed strongly against the uterine mucous membrane, so as to remove it entirely. Then an injection of creasoted glycerin, 1-3 in strength, is made in cases of mucous endometritis; while the chloride of zinc, 1-10 in strength, is used in cases of hemorrhagic metritis. The parts are then to be kept scrupulously clean to prevent reinfection. Out of 69 cases which were subsequently seen, 39 were completely cured, 19 were

cases of hemorrhagic endometritis, and 20 of mucous endometritis.

In 15 cases there was great improvement, and finally, in 15 other cases, no change at all.

Dr. Bertrand, of Toulon, gave a description before the last meeting of the *Académie de Médicine*, of a peri-hepatic friction sound encountered in abscess of the liver. He thinks it to be a very important diagnostic sign. This peri-hepatic friction sound can be noted by the ear as well as by the hand applied on the right hypochondrium, more often on a level with the seventh or eighth intercostal space, in the anterior axillary line, which indicates its peritoneal origin. It may be possible that this friction sound may be due to an inflammation of the pleura and not to that of the peritoneum; but this is of no great importance, as the peri-hepatic friction sound would then be due to a dry pleurisy having for origin the peri-hepatitis. The circumscribed inflammation of the peritoneum is in all cases the primary cause of the friction.

Not only does the peri-hepatic friction sound point to an abscess, but it is also a proof that the liver is fixed to the abdominal parieties by the peritoneum, which is of no less importance in a surgical point of view. The highest friction sound always corresponds to the most painful part; it is always at this point that the parietal œdema will appear.

Prof. F. Raymond, of the Paris Faculty of Medicine, employs the Galvanic and Faradic electrical treatment in the following manner, especially in the treatment of muscular atrophy. Muscles can be treated by either the Galvanic or Faradic electricity. If the Faradic current is employed while the muscle is in communication with the conductors, this particular muscle undergoes a series of rapid contractions; while, on the contrary, if the Galvanic current is applied, only two contractions are obtained, one when the current is opened, the other when it is closed.

Hence for the stimulation of the contractility of muscular fibres, the Faradic current is the one to be recommended; and the mode of applying this Faradic current according to what we desire to obtain, either local Faradization or a generalized one. The localized Faradization has for its object to act on an individual muscle; it is either direct or indirect.

Direct Faradization is to influence the muscular substance directly. For this purpose the two moist electrodes are placed on the external integument corresponding to the muscle to be electrified; the dry electrodes are only to be used when the superficial integuments are to be influenced.

Indirect Faradization is used to obtain a contraction of the muscle through the intermediary of the motor nerves which supply it. One electrode is to be applied at any indifferent part, while the other, the active electrode, is to be placed in a region where the nerve trunk which is to be influenced passes superficially. Each local Faradization must be continued for ten minutes at one seating.

Generalized Faradization, on the other hand, has for its object, to act on all the peripheral nerves. The patient is placed on a chair, with his bare feet resting on a stool presenting the form of an inclined plane. This inclined plane is covered with a plate of iron or copper, which is separated from the patient's feet by a piece of moist flannel. This plate is in communication with the fixed pole of an induction electrical apparatus; the other pole terminates in a wire brush, or a wet sponge, which is to be applied to the different regions of the body, beginning at the back of the neck, applying the brush especially on the painful spots and regions corresponding to the first, second and seventh cervical vertebræ. It is then carried successively to each side of the back, on the chest, abdomen, and especially in the epigastric region (on account of the solar plexus), the upper and lower extremities, and finally, the head is Faradized, using here the hand as an electrode. Each sitting ought to last about fifteen minutes, and be divided as follows: one minute for the head, four for the neck and cervical region; three for the back; three for the abdomen; and four for the extremities.

In the treatment of muscular atrophy due to a spinal lesion, anterior polyomyelitis, or progressive amyatrophy, we must act at the same time upon the central lesion and the peripheral alteration of muscles. To restore the contractility of muscular fibres Faradization of the involved muscles must be recommended; while on the contrary, to combat the spinal lesion and to act favorably on the nutrition of the anatomical elements and tissues, we must resort to Galvanization of the vertebral column.

The Galvanization is to be done by applying the positive pole at the back of the neck,

and the negative one in the lumbar region. This is kept up for two minutes; when the poles are reversed, positive in the lumbar region and negative in the back of the neck. Two or three sittings a week are to be recommended. In acute anterior polyomyelitis, or in lesions of recent occurrence, Galvanization must be kept up for from two to four minutes. In spinal lesions, of slow progression, the electrical treatment is to be kept up longer. In recent cases the treatment must last from six months to one year; in old cases two treatments of three months' duration are called for yearly.

As regards more general news, a new law regulating the practice of medicine in France has just been presented to the French House of Representatives. Amongst its special clauses is one forbidding the practice of medicine in France, to any one who is not a graduate of one of the French schools. I am sorry to say that this has been brought about by the way in which certain foreign medical schools have conducted the teaching of medicine; creating graduates by the cartload, and in a lapse of time which is hardly sufficient to prepare a man and render him capable of even understanding the medical lectures delivered to him.

PERISCOPE.

Contagiousness of Leprosy.

In the *Lancet*, May 17, 1890, there is an interesting paper by Poupinel de Valence, Physician to the St. Lazare Leper Hospital, at Port Louis, Mauritius, in which he discusses the question: Is leprosy contagious, or rather, is it transmissible?

Dr. de Valence has passed more than twenty years in an asylum set apart specially for this disease, the St. Lazare Leper Asylum of Mauritius. In a report on the Spedalsked which he wrote on May 15, 1882, and which was asked for by the Government of this island, he gave a short account of the first appearance of the disease in the world, and in Europe in the seventh and eighth centuries, as well as a history of its spread in the twelfth to the fourteenth centuries. Its first appearance in Mauritius, it was stated, dates from September 4, 1781, when field laborers were introduced into the island from abroad. Since that report was written this opinion has been modified. At one time no other mode of introduction would be admitted than that it came into the island through the medium of Kaffirs and Malagassees, who were imported to supply the wants of agriculturists. Dr. de Valence has gathered observations which prove that even at this period there were twenty whites ill of the disease, and that subsequently Europeans who had settled down here and married into perfectly healthy Creole families became ill themselves and transmitted the disease to their wives by cohabitation and to their children by inheritance. He himself, in fact, has had the opportunity of noting the transmission of this affection, and of seeing perfectly healthy servants contract the disease in consequence of having eaten the leavings of their master who was ill.

Transmission by inheritance is, in his opinion, the most powerful means of transmission; and although inheritance is often very difficult to trace it may be done with time. Dr. de Valence says it took him fifteen years before he was able to obtain the proof in certain instances. In order to elucidate this point it is unnecessary to state that much patience during many long years of practice as a medical man is required to gain the confidence of patients and enable the inquirer in the end to bring to light the secret which is usually kept only too well, and which, on exceptional occasions, is unveiled in a moment of unwonted confidence. The following is an example. In the year 1800 there lived in Mauritius a family consisting of four girls of noted beauty. Two married and left the country. The other two were married in the colony. These girls had children affected with leprosy. One can at the present day easily trace the descendants of these four girls and enumerate the members of the family who died from the disease. But it appears that these girls were not the only children in the family. There were also two brothers; one died leprous, but of the other, in spite of all his researches, Dr. de Valence was unable to find any trace. Hardly eight months ago he at length found a son of his, but in a moribund condition, and he died two days after being discovered. He was a hideous spectacle. He said the man of whom Dr. de Valence spoke above was his father, who died of leprosy without any one knowing the fact. Thus a complete history of inheritance was traced.

Is the disease transmissible by cohabitation? Dr. de Valence does not hesitate to answer in the affirmative. One cannot reason-

ably deny the fact; and if it cannot more often be proved, it is because the transmission is sedulously concealed by the parties interested, who only acknowledge the fact when they cannot do otherwise. In his pamphlet on the Spedalsked he gave a case of a leprous husband who transmitted the disease to his wife. He can affirm to this particular case the more confidently because both persons were under his care and treatment until they died. He now gives at length another case not quite similar in details.

Mr. C—— left Mauritius in search of work in Australia. Finding nothing to do in Melbourne, he shipped as a sailor and went to India, where he made the acquaintance of an Indian girl. He was not long in getting intimate, and one day, having noticed that she had spots on her skin which she appeared to hide, his curiosity was raised, and on watching her attentively, he thought they were of venereal origin, and in consequence visited her more rarely. But, finding that the woman now sought him out, he became uneasy, and left India for Madagascar in order to get rid of her. One morning, having noticed that he had marks on his body and that his face was puffed, he became alarmed, and sailed for the Cape of Good Hope. "I was uneasy," he said, "about my state. Something strange was happening in me without my being able to explain what it was." Some months, however, after his arrival his health seemed to ameliorate, and his face was no longer puffed. His skin was again as smooth as before. "It was then," he said, "I thought of getting married." He married a woman of the Cape, and returned to Mauritius. During the year following his return to this colony the disease declared itself, and some time after he had a little girl, who is now five years of age and leprous. His wife is not affected. He is convinced that it was the woman he had abandoned in India who had communicated the disease to him. Some days before he left for Madagascar he had occasion to see her, and, judging by the intimate knowledge that he has now acquired of the disease, he is certain that it was leprosy she had. The poor fellow who related this story was an intelligent man, whose version of what happened never varied, and it may be accepted with confidence.

Dr. de Valence says of contagion properly so-called—that is to say, transmission by contact: "It would be impossible unless contagion be admitted, to understand how a person affected with tubercular leprosy, without sores or ulcers, or other solution of continuity, can communicate the disease to a healthy person; and there is proof that he can—inheritance and cohabitation being, of course, put out of the calculation. But medical men attached to leper asylums have on numberless occasions the opportunity of noticing that the air in the wards is contaminated by the pulmonary exhalations as well as by the secretions of the patients. Hence certain volatile organic matters unknown to science—in which the contagion may be present—may be diffused into the air.

"Let us now consider the room in which a leper lives, sleeps, eats, side by side with a healthy person, using the same bed and the same clothes. One cannot but admit the possibility of transmission of the virus in such a case, if there exists only one single example in proof, and such an example is given further on. In spite of the existence of the bacterium discovered by Hansen, the presence of which in the glands was afterwards confirmed by Cornil and Suchard, which discovery has added a step to the proof of the contagiousness of leprosy, all experiments to communicate it to animals by inoculating the cultivated bacteria have had negative results. It may indeed be that the experimenters have been too hasty in proclaiming this result, considering the long incubation of leprosy, and they should have waited five or six years before coming to a decision. I am not aware whether sucking pigs have ever been inoculated. It seems to me that these animals would offer a peculiarly favorable 'culture.' M. Leloir, in a recent article on leprosy, says it is a parasitic disease, proving by this fact that it is contagious. Others deny its contagiousness, and will continue to deny it until positive evidence can be obtained by inoculation. Although I do not know in what way contagion takes place, my conviction is that leprosy is essentially an hereditary disease, that it can be transmitted by cohabitation, and that in certain cases a healthy person may contract the disease by living with a leper. I have shown to my brother practitioners in the island an Indian who contracted the disease from his master, whom he had attended, and with whom he had lived on terms of intimacy for many years. Dr. Para, now in Paris, can if necessary certify to the facts.

"Another case is that of an European lady of healthy parentage, who, being without means, became housekeeper to a family in which some of the members were affected with tubercular leprosy. She lived many years with this family. One by one all the members died of the disease. Five years afterwards she showed signs of being affected, and she, too, died of leprosy at the age of sixty or more.

"To conclude, I may say that it seems to me that the observations quoted in the course of this paper make it difficult to deny that this disease can be transmitted in all the three ways mentioned."

Oxygen Gas in Pneumonia.

In an article on the value of oxygen gas in pneumonia in the *Lancet*, May 24, 1890, Dr. John Chambers says that during the early months of last year, as a practicing physician in the United States, he met with many cases of the disease, occurring chiefly in adults and men of middle age. These symptoms in the cases observed were due directly to the deficient aeration of the blood. They were marked by difficulty of breathing, together with weakness of the heart's action. The faulty aeration is recognized almost at its onset by the livid hue of the lips, of the ears and the finger nails. This condition is well known to every physician, and, as it is the token of immediate danger to the patient, it is important that the best measures be taken to overcome, if possible, the difficulty. In pneumonic cases in young and old, presenting symptoms of deficient blood aeration, the inhalation of oxygen gas has, in Dr. Chambers's hands, proved to be a remedy of remarkable power. Under its use the lips recover their redness, the breathing becomes easy, and the toneless heart is strengthened in its action.

As to the method of using the gas, a few words may be added. A supply of pure oxygen gas can be easily obtained from the laboratory of a chemist. It is collected in a receiver, and can be conveyed a considerable distance without loss of gas. In the immediate use it is better to fill a rubber bag from the tank than to give the gas directly to the patient. The rubber bag should have a capacity of one or two gallons, and be provided with a stopcock at one end. To this a short rubber tube ending in a mouth-piece can be readily attached. The mouth-piece is applied over the mouth of the patient, the valve of the bag is turned, and the whole or any portion of the gas in the bag can be inhaled at a single dose. As the gas is heavier than air, its escape from the bag will be facilitated by holding this above the level of the mouth, and slight pressure upon the bag will still further assist in the inhalation. From half a gallon to a gallon of gas can be given every half hour with perfect safety, and with great relief to the sufferer's symptoms. Such doses have been continued for four days and nights, with the most satisfactory results. Life has certainly been saved in many cases when it has seemed that death was inevitable. When cardiac weakness is urgent, an excellent and safe tonic is found in sulphate of strychnia, which may be given in doses of one-eightieth of a grain every four or six hours, until a decided change in the condition of the pulse is manifest. When this occurs the strychnia is omitted, but may be of use again in a day or two if the pulse should fail. The relief in desperate cases, where asphyxia is threatened, is so marked that it is astonishing physicians have not more generally used this simple remedy. The use of oxygen gas imposes a great deal of labor on physicians and nurses. With a little training, however, the nurse soon learns to give the oxygen, thereby relieving the physician. Two nurses should be employed—one for the day and one for the night.

Poisoning by Antifebrin.

Dr. J. Vierhuff, of Subbath, in Courland, communicates to the *St. Petersburger Medicinische Wochenschrift* the notes of a case of antifebrin poisoning, which are quoted in the *Lancet*, May 24, 1890, and which show what dangers people run who dose themselves with drugs of this class. A healthy young married woman, who had been in the habit of taking antifebrin for headache, feeling the pain come on early one morning last summer took, fasting, about a teaspoonful of the drug in some water. In about ten minutes, the headache not being relieved, she repeated the dose, which her husband remarked might prove dangerous. She consequently took a glass of milk and some alum water in order to produce vomiting, which she succeeded in doing, but immediately afterwards giddiness, singing in the ears, throbbing in the temples and a

dull pain in the head, together with a feeling of weakness, came on, and the face assumed a livid hue. When seen four hours after the drug had been taken the face was a livid color, the lips blue, the pupils contracted, but the heart, temperature and mental condition were normal. An aperient and a stimulant were ordered. Shortly afterwards the patient became suddenly collapsed, the pulse could not be counted and the breathing was very shallow; in fact, the woman appeared to be dying. The soles of the feet were brushed, vinegar was rubbed on the face and cold water sprinkled over the face and chest; also a mixture of camphorated oil and ether was ordered for injecting subcutaneously. While this was being procured several syringefuls of dilute spirit, which was all that could be obtained, were injected and the patient was brought round, though for three hours and a half her condition appeared hopeless. Then, after recovering somewhat, collapse again came on, and recourse was had to an intravenous injection of a solution of common salt, which appeared to act most beneficially. In about fourteen hours after the drug had been taken the patient was out of danger. After that she continued to improve, though she complained of debility and pain in the limbs for a week. Dr. Vierhuff remarks that the serious symptoms were probably due largely to the patient's taking the antifebrin on an empty stomach.

The Germicidal Properties of Urine.

Dr. Lehman, of Würzburg, remarking that urine rarely contains pathogenic bacilli, although they usually abound in the kidneys in infective diseases, determined to inquire whether the absence of bacteria in the urine is due to the filtering process to which it is subjected in the kidneys, or to some inherent germicidal property. The nature of the constituents of urine—viz., acid phosphates, carbonates and aromatic bodies—would seem to render the theory of bactericidal action not improbable. His experiments were conducted in the following way and are quoted in the *Lancet*, May 24, 1890. Fifty cubic centimeters of fresh urine were added to one cubic centimeter of a twenty-four hours old broth culture of anthrax, cholera and typhoid bacilli, and, after being well shaken up, one cubic centimeter of the mixture was employed to fertilize an agar plate culture. This was kept in an incubation apparatus. In all cases the number of colonies was found to have diminished, the greatest diminution occurring when the initial number of colonies was comparatively small. The germicidal property of the urine appears to be interfered with, if not destroyed, by neutralization with potash and also by sterilization. From some observations made by Dr. Richter it would seem that fresh albumin has a powerful action on the bacilli of anthrax and typhoid, but that the yolk of egg, on the other hand, forms a particularly suitable culture medium for them.

On Milk Diet in Scurvy.

In the *Bolnitchnaia Gazeta Botkina*, Nos. 5, 6, 7, 8, 9 and 10, 1890, Dr. Mïkhaïl M. Tcheltzoff, of Rybinsk, publishes a suggestive and instructive paper on the treatment of scurvy by a strict milk diet, which was most successfully resorted to by him in twenty-eight consecutive cases of this disease. Five glassfuls of milk were given on the first day of treatment, a glassful being added daily on each subsequent day. No other food whatever was allowed, and no other means, beyond gargling with a two per cent. solution of boracic acid, were employed. The main results derived from Dr. Tcheltzoff's clinical researches may be given as follows: First, a strict milk diet cuts short scurvy in any stage of its course. Second, no relapses occur in cases treated by this method. Third, recovery takes place by far more rapidly than under any other method of treatment. As a matter of fact, of the author's twenty-eight cases, nineteen recovered in about eight days, five in a fortnight and four in three weeks. Fourth, when any other food substances are added to milk, recovery is quite distinctly retarded. Fifth, of all symptoms of the affection, aching pains of the body and the mental depression disappear most rapidly. Sixth, in febrile cases the temperature returns to normal in two or three days, but sometimes even on the first; in some rare cases, however, the fever may subside not before the fifth day. Sixth, later on, all other symptoms gradually disappear, such as subcutaneous swellings or indurations, muscular tenderness, swelling and rigidity of joints, tumefaction and ulceration of the gum, gingival bleeding, etc. Seventh, the

beneficial effects of milk in scurvy must be attributed partly to its being "an ideal food substance," but chiefly to its acting as a medicament endowed with the power of restricting an increased systemic metabolism, and to its increasing the amount of potassium in the system, while decreasing that of chlorides. Eighth, the patients bear the exclusively milk diet quite well (no gastro-intestinal disturbances, etc.). Dr. Tcheltzoff adds that Dr. V. N. Savitch, of Rybinsk, has similarly obtained excellent results from the milk treatment in two severe cases of scurvy, and that milk is regarded by the North-Russian peasantry as an almost specific remedy for the disease.

Wounds of the Femoral Vein.

At the meeting of the Philadelphia County Medical Society, held May 14, 1890, Dr. Ross P. Cox read the report of a case of wound of the common femoral vein, and, in conclusion, set forth the following facts regarding the treatment and results of wounds of the common femoral vein as taught by cases collected from all possible sources, and tabulated by him.

Of wounds of the common femoral vein, not occasioned by tumor operations, and treated by immediate ligation of vein, there were 3 cases, including the case reported, 2 deaths from gangrene and 1 recovery (the present case).

Of ligation of the common femoral vein for wounds, not done in tumor operations, after trying and failing with compression, there were two cases, 1 death from septicemia and 1 recovery.

In twenty-six cases of ligation of the common femoral vein, wounded in extirpation of tumor, 16 patients recovered and 10 died. Of the 10 deaths, 3 were from hemorrhage, 2 from recurrence of malignant growth, 2 from pulmonary œdema, 1 from pyemia, 1 from exhaustion and 1 from limited gangrene and exhaustion, and a man forty-nine years old was infected generally by sarcoma.

Twenty-seven cases of ligation of the common femoral artery or the external iliac artery and the homologous vein, for wounds made in tumor operations, give 6 recoveries and 21 deaths. Of the 21 deaths, 12 were from gangrene, 4 from septicemia and one each from hemorrhage, recurrence of growth, pyemia and pneumonia. The cause of death of one case was not given.

In wounds of the common femoral vein, not made in tumor operations, treated by ligation of the homologous artery only, out of 5 cases there were 5 deaths, one each from septicemia, gangrene, shock and exhaustion, and in one instance no cause was given.

Of wounds of the common femoral vein, not made in tumor operations, treated by ligation of both artery and vein, there were 17 cases, giving 6 recoveries and 11 deaths. Of the 11 deaths, 5 were from gangrene, 4 had no cause assigned and 2 were from hemorrhage.

Of wounds of the common femoral vein treated by lateral ligation, there were 3 cases, with 1 death from hemorrhage and 2 recoveries.

Of wounds of common femoral vein, not treated by ligation of either vein or artery, there were 11 cases and 11 deaths; 4 from causes not given, 3 from hemorrhage and 2 each from pyemia and gangrene.

Congenital Double Anophthalmia.

In the Moscow bi-weekly *Meditzinskoïe Obozrenïe*, No. 5, 1890, Dr. V. P. Nebolüboff, of Berejnyë Tchelny, details an exceedingly rare case of congenital total absence of the eyeballs, in an otherwise normally-developed, well-nourished and generally healthy peasant boy, two years old, who was brought to the author on account of scabies. On inspection, the upper eyelids were found to be somewhat depressed and hanging down in a valve-like fashion, the patient being able to raise the curtains but to a very slight extent. On separating the lids, a totally empty cavity, or sac, presented itself, its walls being lined with a smooth and continuous mucous membrane. The largest antero-posterior diameter measured 1 centimeter. Corresponding to its posterior end or the apex of the orbit there was seen a circular orifice about 2 millim. in diameter (scarcely admitting a middle-sized probe), leading into a canal similarly lined with a mucous membrane. It proved impossible to determine the length of the cavity. When crying, the boy shed tears quite profusely. His hearing power, as well as smelling, taste and sensibility were quite normal. A couple of years after his coming under Dr. Nebolüboff's observation, the patient died from post-scarlatinal dropsy.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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ETIOLOGY OF CHOLERA INFANTUM.

Passing by such predisposing causes as age, constitutional feebleness, bad hygienic surroundings, impure air and water, dentition, etc., there remain two causative factors in the production of cholera infantum which deserve careful study, namely, high temperature and the food supply.

It is a matter of common observation that the mortality from diarrhœal diseases in children is greatest during the summer months. The studies of the effect of heat upon these affections, which have been made by Seibert for New York, by Bajinsky for Berlin, and by Meinert for Dresden, are in striking agreement. Seibert (quoted by L. Emmet Holt, in his admirable article on "The Diarrhœal Diseases of Children," in Keating's *Encyclopædia*), has shown that, taking the average of a large number of years, the mortality from diarrhœa increases rapidly from May to July, and then steadily decreases. Thus, from 1877 to 1887, in a total of thirty-one thousand and forty-eight cases, the average mortality during May was six hundred and sixty, during June, four thousand one hundred and three, while during July it reached the enormous number of twelve thousand four hundred and sixty-eight. The mean daily temperature for these same months was respectively 54°, 61° and about 65° Fahr. It would appear from these figures that after the atmosphere, and from it the ground and the dwelling-houses, had become heated to a certain point, say from 55° to 58° Fahr., the addition of a very few degrees produced an enormous increase in the mortality.

It is admitted that heat exerts an unfavorable influence, but just how does it act? Some have supposed that it is by heat stroke or heat exhaustion. Long-continued high temperature is exhausting to adults as well as to children. Its debilitating effects, however, are not due to the heat alone, but to derangements in digestion also. Increased heat means increased perspiration, increased thirst and increased and often indiscriminate drinking. In children the results are more marked because their digestion is feebler, they are more apt to be over-fed and given milk instead of water when they are thirsty (and milk is very prone to decomposition), and because they have less chance of a change in air and hygienic surroundings. The smaller number of deaths during June, notwithstanding the slight difference in temperature, is best explained by the fact that by June the heat has not continued long enough to make the houses hot continuously throughout the twenty-four hours, and the spring months have left the children, in most instances, with considerable resisting power. The fall in mortality which occurs in August and September is due in part to the fact that the deaths which have occurred by that time have diminished the number of children liable to be affected,

and to the fact that we have, as a rule, cooler nights and early mornings, though the temperature at midday may be higher than during July.

When we turn to the food supply, one circumstance stands out prominently before all the rest—it is that breast-fed infants are almost exempt. According to statistics collected by Holt, of nineteen hundred and forty-three fatal cases, only 61, or about three per cent., had the breast exclusively. This fact is conclusive evidence that high temperature in itself is not the most important of the two causes under discussion, and indicate that the heat is harmful chiefly by bringing about certain changes in the food supply of hand-fed children. It is well known that all organic matters are prone to decomposition and putrefaction in summer time, and that cow's milk, which forms the most frequent substitute for mother's milk, is especially liable to these changes, the cause of which is bacteria. Milk is subject to so many sources of contamination from the time it is obtained from the cow to the time it reaches the child, that the marvel is that it is not more frequently the cause of illness. Sterilization of the milk has accomplished much in preventing and in overcoming attacks of cholera infantum, but it has not accomplished all its warmest advocates would have us believe. For there are at all times in the intestines certain bacteria, particularly the bacterium lactis aërogenes, or aceticum and the bacterium coli. Under a slight catarrh of the bowel or a dyspeptic diarrhœa, which usually precedes an outbreak of cholera infantum, these bacteria multiply in numbers, and a large number of new forms appear. These have been described and cultures of them demonstrated by Baginsky (*Transactions of the Berlin Medical Society*, 1889, p. 139). When these have developed before the milk has been sterilized, it is manifest that subsequent sterilization of the milk will not cure the disease which they have produced. Some of them are undoubtedly capable of producing disease, as experiments have proved; but no one of them has been found invariably associated with the disease. Two groups of bacteria are seen in the intestinal wall in cholera infantum; in some places bacilli occupy the glands of Lieberkühn and the interstitial tissue, and in other places the glands are filled with heaps of cocci. This being the case, cholera infantum probably is not due to the action of a particular bacterium; in other words, is not a specific disease. Holt believes that the symptoms are produced by toxic alkaloids, ptomaines, developed by the action of the bacteria on the food. Baginsky has gone further. Having discovered that the bacillus which liquefies gelatin and colors it green, develops ammonia by its action on meat, he investigated the stools of cholera infantum for ammonia and found it in considerable quantities. But the abnormal bacteria found in cholera infantum are saprophytes, that is, produce putrid decomposition, and when Baginsky spread meat with the stools of cholera infantum ammonium was produced in greater degree, as was to be expected from the combined results of different bacteria having a common action. Undoubtedly ammonium in the intestines would be a violent irritant, if in sufficient quantity; but we do not see that its absorption would produce a toxic effect. The experiment, therefore, of killing a frog by injecting carbonate of ammonium proves nothing, especially when we recollect how much of this salt can be taken internally by children without harm. Nevertheless, Baginsky's observations are important as showing that cholera infantum is not a specific disease but depends upon the local and systemic action of decomposition products developed by the action of bacteria upon the food. Children are more susceptible than adults for the reasons mentioned in an earlier part of this editorial, and because in them there is a relative deficiency in the secretion of hydrochloric acid, and the bile contains

less bile salts. Holt appears to adopt the view that bile is not an intestinal antiseptic, but the later investigations of Kossel, referred to by Baginsky, indicate that it is.

It is impossible to overestimate the importance of a correct etiology of cholera infantum. Upon it depends the saving of thousands of lives, through intelligent efforts in preventing the disease and well-directed methods of treatment. Until recent years too little attention has been given to the food supply as the most important cause. The food may cause it by being spoiled, as is the case with adulterated and sour milk; by being improper in kind, such as solid food for nursing children; and also by being given in too large quantities. These three errors in diet usually co-exist. The most important things in prevention are to obtain pure milk and to sterilize it before use, to restrict the diet and to guard against over-feeding. It is better, in summer time, to give children too little rather than too much.

THE VAGUS TREATMENT OF CHOLERA.

In these days when so much importance is attached to the operation of bacteria it is rather startling to come across a scientific paper which shows but little respect for these creatures. More than ordinary attention will therefore be attracted to an article on the Vagus Treatment of Cholera, by Dr. Alexander Harkin, in the Dublin *Journal of Medical Science*, March, 1890. Of all the epidemic diseases there is none whose bacterial causation is believed to be more clearly established than that of cholera, yet Dr. Harkin ignores such an etiological relation altogether, and shows that simple vesication over the course of the pneumogastric from the mastoid process to the angle of the jaw is followed by the most surprising results even in the worst form of this disease. In the cholera epidemic on the island of Malta during the year 1877, this treatment was thoroughly tested. Dr. Inglott, one of the physicians to the Zeitun Hospital, states that "Dr. Harkin's vagus treatment acted in our hands in many cases like magic. I remember well to have seen a boy, eight years of age, at the hospital in so advanced a state of algidism that very little hope there was of saving his life. All internal remedies failed. I was astonished on seeing him dying in the morning, and quite convalescent in the afternoon, after a strong vesication over the vagus. I have no hesitation in stating that Dr. Harkin's treatment is a remedy both reliable and speedy in its action in all severe cases of cholera." Dr. Cannataci, another physician to the same hospital, says that "the vagus treatment failed completely in several cases, but in many cases acted like magic." He relates five cases, and from these and about thirty others of the same kind he concludes that Dr. Harkin's vagus treatment is very beneficial in Asiatic cholera.

It is interesting to learn that this treatment is based on the opinion of Dr. Henry MacCormac, who, as long ago as 1834, taught that cholera is a neurosis, a disease of the sympathetic nervous system, the vomiting, purging, aphonia, vertigo, spasms, cramps, tremors, etc., all revealing their nervous origin. Dr. Harkin believes that by stimulating the vagi he arouses their inhibitory power, which controls and antagonizes the disordered innervation of the abdominal sympathetic. He says its "effect is instantaneous; the purging, the vomiting, and cramps cease; the patient generally falls asleep, and awakes cured, long before vesication takes full effect."

When we consider that cholera has generally been regarded as a hopeless disease, and that protection against it was only to be sought for in prophylaxis, these reports possess more than ordinary interest. The practical testimony which is given in support of the measure seems to be too substantial to be disputed, and the fact that it is based on well-known anatomical and physiological properties of the morbid process is in itself, to say the least, very much in its favor.

CARELESS ASSERTIONS IN SCIENTIFIC DISCUSSIONS.

There is, perhaps, nothing which does so much to retard progress in science as the habit of making careless assertions—that is, assertions which cannot be established, and which it is sometimes exceedingly difficult to correct, because they get a start of the truth which comes after them, and which needs time to undo the impression produced by its counterfeit which has gone before.

A case of this kind has recently occurred in the *Annual of the Universal Medical Sciences*, for 1889, in which Dr. Harold Ernst, of Harvard, states that Dr. Victor C. Vaughan, of the University of Michigan, had made the suggestion that bacteria may be the products of alkaloids. On having his attention called to this remarkable assertion, Dr. Vaughan asked, in the columns of one of our contemporaries, that Dr. Ernst would point out in the book by Dr. Vaughan and Mr. Novy, which he had said contained this suggestion, the passage where the suggestion was made. In reply, Dr. Ernst refers to a page containing the expression: "We are justified in saying that the micro-organism may be an accompaniment or a consequence of the disease."

The intelligent readers of the REPORTER will, no doubt, wonder at the carelessness or recklessness which could have led Dr. Ernst to accuse an eminent investigator who had said a micro-organism might be an "*accompaniment* or *consequence* of *a disease*" —a fair and reasonable supposition—of making so silly and unreasonable an assertion as that a micro-organism might be the "*product* of an *alkaloid*." The worst of the matter is this, however, that, having committed such a blunder in the first place, Dr. Ernst, in the second place, after his attention was specially called to the case, should fail to see that what he cites as authority for a rather contemptuous charge furnishes no support for it whatever; that the editor of a well-known medical journal should fail to see this point; and that doubtless many of its readers were taken in too. We happen to know that this has actually occurred, and for this reason, more than any other, we take the trouble to point out the specious or careless character of Dr. Ernst's charge and pretended proof.

Furthermore, the occasion enables us to speak again of the importance of conscientious accuracy in discussing scientific questions and the great damage which is done by carelessness in such matters. In the case referred to, one of two things must happen: either it will be supposed that Dr. Vaughan committed the folly charged to him by Dr. Ernst, or it will be known that Dr. Ernst carelessly brought a false charge against him. One scientific reputation is sure to suffer in either case; and, unfortunately, it is by no means certain that that one will suffer which deserves it.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

FOURTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF OHIO. 8vo, pp. 350. Columbus, Ohio: The Westbote Co., 1889.

This Report is for the year ending October 31, 1889. It is a very complete presentation of matters pertaining to the public health in Ohio. The State Board has been able to accomplish this by constant communication with local Boards throughout the State. Every city, and every village having over five hundred inhabitants, with the exception of forty-two, has now such a local Board. In order to learn the amount and character of the sanitary work done through the local Boards, the State Board issued a circular-letter, containing a series of questions. In many cases these were answered by the local health officers, and they give a very good idea of the needs of the respective communities and of the work done by the health officers.

The volume concludes with several papers on sanitary subjects, such as the care of the eyes, water supply, systems of sewerage, etc. Altogether the publication is a very creditable one.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY. Twenty-second Annual Meeting, New London, Conn., July 16, 1889. Vol. iv, part 3, 800, pp. 513. Published by the Society, 1889.

The first paper in the present volume is one by Dr. B. Alexander Randall, of Philadelphia, on the Perforation in Shrapnell's Membrane. This perforation has been found frequently since the author began to search for it carefully. Notes of twenty cases are

given briefly. The author emphatically denies that such a thing as a normal foramen of Rivinus exists, and asserts that all such perforations are pathological. The paper gave rise to an interesting discussion.

The second paper is by Dr. F. M. Wilson, Bridgeport, Conn., on Three Deaths following Suppurative Otitis, with two Autopsies. One of the deaths was from purulent meningitis, the other from abscess of the cerebellum.

Following these papers are several shorter ones, and the volume concludes with an extremely valuable alphabetical index of otological literature, from July, 1888, to July, 1889, compiled by Dr. Gorham Bacon, of New York City.

Judging by the Transactions, the Otological is an ideal scientific society. The papers presented are of a strictly scientific character, there are few of them, and the discussions upon them are full and valuable. The volume before us is handsomely printed on excellent paper.

TRANSACTIONS OF THE TWENTY-FIFTH SESSION OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA. Held at Pittsburgh, September 17–19, 1889. 8vo, pp. 320. Philadelphia: Sherman & Co., 1890.

The present volume contains the usual number of papers. Most of them consist in the reports of cases, with details of the symptomatic treatment adopted. The late President of the Society, Dr. Wm. B. Trites, contributes an interesting paper on Herpes Zoster. In one case a persistent supraorbital neuralgia followed an attack of herpes frontalis. Dr. Van Lennep's paper, on Experimental Studies in Intestinal Surgery, etc., differs from the large majority of the others in having some claim to be considered scientific. The author recommends the use of soft rubber drainage-tube, made into rings, as a substitute for bone plates, catgut rings or mats, or rubber discs, in the operation of lateral anastomosis. He regards end-to-end union, after resection, as the ideal operation.

DIE MICROORGANISMEN DER MUNDHOEHLE. Von W. D. Miller, Dr. Med. et Phil., etc.

THE MICRO-ORGANISMS OF THE ORAL CAVITY. By W. D. Miller, M. D., Ph. D., Professor at the Dental Institute of the University of Berlin. With 112 illustrations and one colored plate. 8vo, pp. 305. Leipzig: Georg Thieme, 1889.

Dr. Miller's excellent work on the micro-organisms of the oral cavity is one of the most interesting books of this class that it has been our fortune to review. The opening chapters are devoted to bacteriology in general, and give the reader a clear and concise knowledge of the subject. In these Dr. Miller has been largely guided by Flügge's classical work. Caries of the teeth, and its prophylaxis, are very thoroughly discussed, and the second part of the book is devoted entirely to the consideration of diseases produced by pathogenic micro-organisms found in the oral cavity. The book is very fully illustrated with beautiful engravings, and would be a valuable addition to the library of any student of bacteriology.

WEEKLY ABSTRACT OF SANITARY REPORTS, issued by the Supervising Surgeon-General, M. H. S. Vol. iv. Nos. 1 to 52. 8vo, pp. 490. Washington, D. C., 1890.

The volume of the *Weekly Abstract of Sanitary Reports*, for 1889, will prove a valuable addition to our editorial library. The Weekly Abstracts, singly, can easily go astray, and both for the sake of preservation, as well as convenience, their reappearance, in a bound volume, is most welcome.

Correspondence.

Correction.

To the Editor.

Sir: In my paper on "The Differential Diagnosis and Treatment of the Continued Fevers of the Southern States," June 7, the reader will note the following corrections.

On page 659, second column, line 15 from bottom, instead of "typical" read "atypical."

On page 660, first column, line 3 from top, instead of "like" read "unlike." And in the line following, instead of "typical" read "typhoid."

On same page, second column, line 14 from top, instead of "typical" read "atypical."

Same page, second column, line 30 from top, instead of "intermittent" read "remittent."

On page 662, second column, first line at top, instead of "first" read "further."

B. F. Humphreys.

Hawkins, Texas.

Notes and Comments.

Simple Treatment for Epistaxis.

Dr. A. H. Fridenberg, in the New York *Medical Record*, April 19, 1890, says: Not very long ago a man walked into my office bleeding profusely from the right nasal cavity. He had similar attacks on previous occasions, which were always very difficult to manage, and during one of them he had nearly bled to death, despite the efforts of the two physicians in attendance. He had finally to be transported to the hospital, where the hemorrhage was checked with the assistance of Bellocq's canula. The present attack had lasted three or four hours, had resisted the usual means of treatment, and the patient declared he had lost a pint of blood. During the ten minutes or so that he had been awaiting his turn in the waiting-room, he had filled the bottom of a cuspadore to the depth of two inches with blood coagula.

Despite his powerful physique—he was tall, and weighed about two hundred and fifty pounds—he showed signs of great weakness, was pale and exsanguinated, and breathed with difficulty through the mouth, the nose, from which blood rapidly dripped, being stopped up with clots. I seated him and packed his nasal cavity with absorbent-cotton pledgets, squeezed dry of carbolized solution, but without avail. The blood oozed through the firm packing. I removed the cotton, made him blow out the blood-clots, and introduced Goodwillie's nasal speculum, but failed to recognize the source of the hemorrhage, owing to the impossibility of wiping away the blood as rapidly as it welled up from the deeper recesses. What I did recognize, however, was the fact that the man was rapidly growing weaker, and that he was in imminent danger of falling from the chair in a swoon. There was but one thing to do, and that was to cork up his nasal passages, anteriorly and posteriorly, without loss of time. I had no Bellocq's canula, however, and there was no time to procure one. In this predicament I bethought me of a simple substitute for the Bellocq, which served me so well that the hope that it may render the same service to others, under the same embarrassing circumstances, must be my excuse for presenting this account of an otherwise very uninteresting experience. I had some rubber drainage-tubing, of assorted sizes, on hand, from which I selected a piece of small caliber, but of sufficient resiliency, about the thickness of a parlor match, and about ten inches in length. One end of this I introduced into the right nasal cavity, and pushed it along the floor of the inferior meatus, through the clots, until it reached the pharynx, whence it curled forward within easy reach of forceps, by which it was drawn out at the mouth, meeting the other end projecting from the nose. The subsequent steps were similar to those employed after the passing of the Bellocq canula. To the mouth end of the tubing I attached a small, compact wad of elastic lamb's wool, rolled in iodoform gauze, and, drawing upon the nasal end, I slipped the wad into the post-pharyngeal space and stretched the tubing until the cessation of all trickling of blood down the post-pharyngeal wall showed that the post-nasal aperture was occluded. Still keeping the tubing tightly drawn to its fullest extent, I rapidly packed the anterior nasal recesses with long strips of iodoform gauze to just within the nostril, all around the tubing. I now tied a knot in the rubber, close to its exit at the nostril, and through it passed a cross-piece of tubing of somewhat larger caliber, just long enough to fit easily inside the nostril. Finally, releasing the end of the rubber, its elasticity caused it to fly back, so that the knot and cross-piece rested upon and firmly held in place the anterior gauze packing. The nasal cavities were thus firmly occluded at both outlets, without any external evidence of the tampon, or any unsightly bulging of the soft parts of the nose. The elastic tubing was at just a sufficient tension to support the packing without the least discomfort to the patient. After forty-eight hours it was easily removed, without recurrence of the hemorrhage, by slightly drawing the knot out of the nostril and cutting the tubing just behind it.

Prophylaxis of Cholera.

The *Abstract of Sanitary Reports* of the U. S. M. H. S., June 20, 1890, contains the following from the *Journal d' Hygiène*, May 22, 1890.

Dr. Legrand, sanitary physician at the French hospital at Suez, has recently published a pamphlet entitled *Contribution to the Study of the Modern Sanitary Prophylaxis of Cholera.* His conclusions are:

1. That the mode of propagation of cholera by the dejections of patients, by impure water and unclean clothing, allows of the establishment of a system of rational prophylaxis, based on medical inspection and disinfection.

2. That long quarantines are useless. The observation still necessary at the present stage of science should be limited strictly to the period of incubation, five days in all, taking into account the length of the voyage, provided that during this period thorough sanitation of the ship and of all movable effects be practiced.

3. That the most efficacious and practical means of disinfection are: Steam-pressure stoves; chemical disinfectants, among which may be mentioned solutions of sulphate of copper, chloride of zinc (5 to 2 per cent.), milk of lime, freshly prepared (20 to 7 per cent.), and solutions of sublimate in the proportion of 1 to 1,000. The latter are preferable to all other disinfectants. Although sulphurous acid does not figure in this catalogue, Dr. Legrand states that

sulphurous acid is efficacious when applied in connection with humidity.

According to Jungfleisch, when sulphurous acid exists in the nascent state in a humid atmosphere it forms an oxyhydro-sulphuric acid which is much more penetrating than sulphurous acid.

Dr. Legrand's work forms an interesting chapter of public and international hygiene. In the course of his scientific exposition of the subject the author refers to the prediction made by Fauvel after the cholera epidemic at Toulon: That at no distant day quarantines properly so-called shall disappear before the irresistible force which tends to multiply international relations, and shall be replaced by preventive measures of a very different order.

An Epidemic of Pulmonary Phthisis.

Dr. Marfan, chief of the medical clinic of the Faculty of Medicine of Paris, gives, in the *Semaine Médicale*, October 23, 1889, the details of a localized epidemic. In an important business house in the centre of Paris, twenty-two persons were employed about eight hours a day. One of them, aged forty, employed at this place for twenty-four years, had been phthisical for three years, when he died on the 6th of January, 1878. He coughed and spat upon the floor for three years, and did not leave his work till three months before his death. From that time, out of twenty-two persons employed, fifteen have died. One only died of cancer, the remaining fourteen died of pulmonary tuberculosis. One year before the death of the first person, who appears to have been the starting point of the epidemic, two employés, who had been connected with the same business for more than ten years, began to cough and spit upon the floor. They died in 1885. Beginning with the end of 1884, the deaths followed each other at closer intervals.

Dr. Marfan states the unsanitary conditions of the apartment in which these persons were employed. It was small, and the cubic air-space was less than ten cubic metres (350 feet) to each person. It was badly ventilated, badly lighted, and the gas was burned a part of each day, especially in winter. The floor was of wood, uneven, cracked and very dirty. The first victim of phthisis and those who followed spat directly on the ground, and the sputa becoming dry, was converted in this already unhealthy apartment, into a poisonous dust. The room was swept each morning, and sometimes the employés arrived before the sweeping was finished and while the dust was still floating in the air. It was difficult to sweep the room thoroughly, since the tables were fixed to the floor. It appears very probable that the swallowing and inhaling of this tuberculous dust was an essential factor in the propagation of the disease.

The proprietors of the place where the deaths occurred removed and burned the floor, and so rapidly was the work accomplished that the reporter had no time to collect a sample of the dust from the cracks in the floor for the purpose of experiments upon animals. A new floor was laid, which was waxed and treated from time to time with spirits of turpentine, all painted surfaces were repainted, and Dr. Marfan recommended that the floor should be swept in the evening after the departure of the employés, and that the windows should be left open all night.

Dr. Vallin recommends in place of these measures a mixture of equal parts of coal-tar and spirits of turpentine, or of paraffine dissolved in warm petroleum, and in place of the sweeping, the removal of the dust by sponges, or cloths moistened with an antiseptic solution.—*Boston Med. and Surg. Journal*, May 1, 1890.

Resection of the Stomach.

Before the Medical Society of Hamburg, January 28, 1890, Schede presented a woman, 51 years of age, in whom, for carcinoma, he resected three-fourths of the stomach. Since the previous summer there had been emaciation. In September a movable tumor, about the size of a kidney, was observed in the abdomen, below the umbilicus, without other symptoms. An incision, December 23, disclosed a carcinoma of the stomach, involving almost the entire organ, but one-fourth being free. The extirpation was easy, as the duodenum was supplied with a long mesentary and the glands were not infiltrated. It was thus possible to make the incision through the gastro-colic omentum close to the greater curvature. The patient made a good recovery from the operation and increased rapidly in weight. Microscopic examination disclosed the epithelium from the region of the incision near the tumor, in a

state of active proliferation and nuclear division. To prevent stretching of the cicatrix, Schede unites the peritoneum and the deep fascia with fine, buried silver sutures. Deep silver sutures are also applied and finally superficial, continuous catgut sutures. Union occurs without reaction.—*Deutsche medicin. Wochenschr.*, June 5, 1890.

Pulsation in the Uvula and Aortic Insufficiency.

In ordinary conditions of health there is no pulsation in the soft palate, or uvula, that is visible on simple inspection, so that when such a pulse is present it may, as a nearly constant rule, be taken as a sign of disease. In a recent memoir in the *Charité Annalen*, Dr. F. Müller, of Berlin, has reported a case in which he observed rhythmical pulsations of the soft palate. The case was one of aortic insufficiency. A slight attack of pharyngitis led to an inspection of the throat, when it was seen that with each carotid pulsation the tonsils and pillars of the fauces moved slightly towards the median line, while the soft palate and uvula were somewhat lowered, so that there was a rhythmical contraction of the faucial opening at the same time that there was an increase in the redness of the mucous membrane. Inspection of the throat after the inflammation had subsided showed the pulsations still present, though somewhat less pronounced. His attention having been thus called to this peculiar condition, Dr. Müller searched for it in six other cases of aortic insufficiency, and found it four times in a total of seven cases.

In an article in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, March 15, 1890, Dr. P. Merklen quotes these cases and refers to an observation of his own. The patient was a young man who had a double mitral and aortic lesion, with marked hypertrophy of the auricle and left ventricle. The subungual capillary pulse was distinct, and in addition the palatal pulse was very evident on inspection. This was more particularly marked in the uvula, which could be seen to swell synchronously with the carotid and radial pulses.

Although, as Dr. Merklen remarks, this sign can have no great clinical value as an aid to diagnosis, it would, nevertheless, be interesting to learn with what constancy it is present in cases of aortic insufficiency, and whether the pulsation is ever visible in any other conditions. Müller never observed it in any other cases than those of aortic insufficiency, and Merklen has also examined many patients without this condition, but failed to find any pulsation. It is certainly not present in all cases of aortic insufficiency, for Müller looked for it in four such cases, but could not detect it. The palatal movements are not caused by transmission of the carotid beat, but are probably produced in the same way as the capillary pulse seen under the finger-nails in cases with similar cardiac lesions.—*Medical Record*, May 31, 1890.

Timbo, a Brazilian Fish Poison—Timboin.

At a meeting of the Society of Naturalists and Physicians of Strassburg, February 14, 1890, Dr. Pfaff described a plant found by him at the entrance of the Rio Branco into the Rio Negro, called *Paullinia pinnata* by Martius. Timbo is used by the native Brazilians as a fish poison and as a remedy in diseases of the liver. The active principle is a crystalline, non-nitrogenous body, soluble in water, alkalies and acids, combining with acids in the presence of heat to form crystalline needles. Dr. Sobieranski described the physiological action of timboïn. In frogs, .0005 gm. ($\frac{1}{125}$ gr.) was found to be a toxic dose. Watery emulsions of timboïn were injected into the dorsal lymph sac. On account of its insolubility the effects occurred late. In from 6 to 10 hours, diminution of reflex irritability and of sensibility was noticed, followed by complete paralysis. In rabbits, death took place after the injection of .05 gm. ($\frac{3}{4}$ gr.) per kilo (2 lbs.) At first, the posterior extremities were dragged. Then there was marked disturbance of equilibrium, with diminution of sensibility. Later on the disorder of coordination progressed to rolling movements, analogous to those observed from electrical stimulation of the cerebellum. Death occurred in coma, with infrequent, irregular, costal respiration. Smaller doses caused diminution of sensibility and slight narcosis. These symptoms appeared more decidedly in dogs. Two to three decigrams (3 to 4½ grs.) produced disturbances of equilibrium and a condition of intoxication. The gait was stumbling, as after alcohol or chloral. Sensibility was diminished from the

first. Later there were rolling movements. Finally the respiratory movements grew fewer in number and death resulted from cessation of respiration. If artificial respiration were employed the blood pressure remained high, and it was possible for recovery to take place. Timboïn belongs to the group of nerve poisons which, in small doses, diminish sensibility and produce narcosis, in large doses cause coma and cessation of respiration.—*Deutsche med. Wochenschrift*, June 5, 1890.

Easton Medical Society.

Notwithstanding the elevated temperature, the active practitioners of this city have formed an Easton Medical Society, to hold monthly meetings in the evening at their rooms. Its object is the reading of papers and the presentation of clinical subjects. A reading-room containing the most prominent medical journals, is an additional attraction. The following are the officers of the Society: President, Dr. Jacob R. Ludlow; Vice-Presidents, Drs. H. D. Lachenour and Isaac Ott; Secretary, Dr. B. Rush Field; Treasurer, Dr. E. W. Evans; Executive Committee, Drs. W. C. Cox, H. D. Michler and Isaac Ott. It is hoped that this Society will serve to promote a more intimate exchange of medical views about the every-day work of the members as well as the inculcation of a more liberal and social spirit.

NEWS.

—Dr. Samuel Wolfe, formerly of Skippack, Pa., has removed to 828 North Seventh street, Philadelphia.

—The Congress of the French Association for the Advancement of the Sciences will be held at Limoges from August 7 to 14.

—Dr. Schneider, Professor of Zoölogy and Director of the Zoological Museum in the University of Breslau, died on May 30, 1890.

—It is reported that recently a New York baby fell five stories and landed unhurt, except for a little bump on its forehead and a slight sprain of one of its ankles.

—Dr. Brieger, whose name is favorably known for his original work in bacteriology and general pathology, has been appointed Extraordinary Professor in the University of Berlin.

—The three cases of suspected leprosy which were detained at the Boston Quarantine Station, from the brig Canadian, from Surinam, have been found to be free from the disease, and were allowed to land.

—Dr. Lewis Baker, of Lickdale, Pa., whose name does not appear in the Medical Directory, was arrested in Lebanon, June 30, on the charge of malpractice resulting in a woman's death. He was committed to prison in default of $1,000 bail.

—Medical Inspector Taylor submitted to the Board of Health of Philadelphia, on July 5, a report embodying the results of his examination of the sanitary condition of the public schools in the wards from the first to the eighteenth inclusive. He reported serious sanitary defects in thirty school-houses.

—Cornelius Vanderbilt and his mother are about to build a "People's Palace" in New York. It will be modeled upon the institution bearing that name in London, and will cost $250,000. It will contain departments for technical and industrial education, mission schools, food and shelter, gymnastics, libraries, etc.

—Dr. William P. Pierce, a graduate of the University of the City of New York in 1852 and now Mayor of Hoopeston, Illinois, was on trial, July 1, in the U. S. Court in Springfield for selling liquor without a license. He was elected Mayor on the Prohibition ticket and closed all the saloons. The allegation is that he and his partner ran a drug store and sold whiskey on the prescription plan.

—Dr. José de la Luz Hernandez, one of the oldest and most esteemed members of the medical profession in Havana, died on May 3, 1890. He took his degree in medicine in 1826, and up to a few years ago took a most active part in public professional life. He was one of the pioneers of hygiene in Cuba, having given public lectures on the subject as far back as 1840, and having been instrumental in introducing many sanitary improvements in the city of Havana.

—The Sanitary Service has recently been reorganized in Brazil, a Central Council having been established at Rio de Janeiro and subordinate authorities in each State. The functions of these bodies are of a most comprehensive character, for they are charged not only with the control of the sanitary administration, but with the regulation of medical practice and the sale of drugs, and with the completion and

improvement of the Brazilian Pharmacopœia.

—The new rule of the Board of Health of Philadelphia, prohibiting burials before undertakers have obtained permits from the Board, went into effect July 1, and caused considerable dissatisfaction among undertakers. The Board, however, on July 2, modified the regulation, so far as it refers to undertakers in the twenty-first, twenty-second and twenty-third wards and Bridesburg. Owing to the distance of these places from the Health Office, undertakers there may bury without obtaining a permit.

—The new Croton aqueduct, which is now nearly ready for use, is 30.75 miles long, all of which is in tunnel, except for a trifle of over one mile. The water comes to the surface in four places, at which it can be emptied through gates into several streams. It starts from the Croton Lake, in Westchester county, 350 feet above the dam, and the water flows down a uniform inclination of 7 1-10 feet to the mile. The tunnel is a trifle over 13½ feet high and over 13 feet wide, and has an estimated capacity of 318,000,000 gallons a day.

—It was reported from Madrid, Spain, under date of July 1, that during the two weeks before that date, there had been 144 cases of cholera and 36 deaths from the disease in Gandia. The medical authorities were of the opinion that the disease would not spread further. The latest cases were of a more benignant type. On July 6 it was reported that the cholera epidemic in Valencia, Spain, had slightly increased. Eleven new cases and three deaths were reported at Rolova, and three new cases and three deaths at Gandia on July 6.

—The highest death-rate ever recorded in Norristown, Pa., was that of June, the number of deaths being 51, or one to every 339 inhabitants, the population, according to the count of the census enumerators, being 17,312. This is an excess of 40 on the deaths for the same month last year. Twelve of the deaths for June were due to dysentery. The Board of Health regulations provide that no person dying of an infectious disease shall be given a public funeral, but thus far the provision has not been enforced in a single instance.

—The House Committee on Invalid Pensions has agreed to report favorably a bill pensioning army nurses. It provides that all women employed by the Surgical Department of the United States as army nurses or otherwise officially recognized as such during the late war, and who rendered service in hospitals, in camp or on the battlefield for a period of six months or more, and who were honorably discharged, and who, from the results of such services or the infirmities of advancing age, are unable to earn their own livelihood, shall receive a pension of $12 per month.

—Representative Laws on June 30 introduced a bill in Congress providing for the appointment by the President of a Commission, consisting of five persons, to make an impartial and thorough investigation of social vice in all its phases, in relation to labor and wages, marriage and divorce and the general welfare of the people. When this investigation is completed the Commission shall report its results to the President, who shall transmit the same to Congress. A similar bill was introduced in the Senate by Mr. Frye with the statement that it was presented by request of the Women's Christian Temperance Union of the United States.

—Dr. E. H. Horsey, a graduate of the Royal College of Physicians and Surgeons, Kingston, Ontario, in 1860, and for fifteen years resident physician at the Palmer House in Chicago, died suddenly on Tuesday evening. He had been suffering for some time, and on Monday submitted to an operation. He was left in charge of a man known as S. W. Nicholas, of Covington, Ky., who is said to have not only neglected his duty, but has mysteriously disappeared. When last seen he appeared intoxicated, but sent a despatch to his home saying he was insane. There seems to be a measure of mystery surrounding the case that no one has been able to satisfactorily solve.

—The Health Department of New York, on June 30, appointed the fifty physicians of the "summer corps," and on Wednesday, July 2, they began their work among the poor of the tenements. Of the value of this work, which will continue during July and August, the following figures from last year will convey some idea. There were 264,000 families visited, 16,148 sick people prescribed for, 12,000 tickets for free excursions distributed and 50,000 circulars containing simple instructions for the care of children given away during the hot months. This work was chiefly among those unable, through poverty, to secure the medical treatment and medicine which the Board of Health furnished free.

MEDICAL AND SURGICAL REPORTER

No. 1742. PHILADELPHIA, JULY 19, 1890. VOL. LXIII.—No. 3.

CLINICAL LECTURES.

DOUBLE OÖPHORECTOMY FOR DISEASE OF BOTH OVARIES AND MULTIPLE UTERINE FIBROIDS.[1]

BY WILLIAM GOODELL, M. D.,

PROFESSOR OF GYNECOLOGY, UNIVERSITY OF PENNSYLVANIA.

REPORTED BY LEWIS H. ADLER, JR., M. D.

Gentlemen: This is the last clinic I shall deliver before you this session. I so much prefer this method of teaching to didatic lectures that I can truly say that I enjoy clinics and am really sorry that they are over.

Last week I had this woman before you just at the close of the lecture, and, as the case may have slipped out of your minds, I shall briefly run over it again as well as my diagnosis, in order to see how near I was right. She is a colored woman, forty-seven years of age, and has borne nine children. Since the birth of her last child—which was a premature birth and occurred one year ago—she has noticed an enlargement of the abdomen together with pain and uterine hemorrhage. She denies specific disease at any time of her life, and so far as she knows has never had peritonitis. Before she insisted so strongly upon these two facts, the question very naturally came up in my mind: Can she be suffering from a blenorrhagia due to some specific infection about the time of her delivery, which occasioned a subsequent septicemia and infection of the glands in the pelvis? Such a condition would not be impossible; but taking into consideration her race, age and history, I was led to consider this a case of multiple uterine fibroids together with diseased and adherent appendages.

While my assistants are preparing the patient, I may mention that the case upon which I last week performed before you this same operation, but for cystic ovaries, has done well from the first, the temperature at no time having gone above 100.2° Fahr. I am truly sorry that for want of time I have not been able to deliver before you this year a didatic lecture on the subject of the ovaries and tubes; but anyhow, to-day the idea that I want to leave uppermost in your minds is that pain in the abdomen, occurring about a week before the menstrual periods, generally indicates tubal rather than ovarian trouble, and that these chronic troubles of the appendages are, as a rule, the results of the exanthemata or of gonorrhœa. These girls—for more frequently they are girls or very young women—are generally emaciated, but not always; for ovarian disease, like fibroid tumors, is often accompanied with corpulency. They are great sufferers, hyperæsthetic and nervous, and often have to be examined under ether.

Returning to the case before us to-day, you will notice that the lineæ albicantes are markedly visible; such a condition in this instance is due to the stretching of the abdomen from her frequent pregnancies.

I now cut boldly down through the fat and the superficial fascia and find the linea alba, which is readily recognizable by its appearing like a yellow line between the two recti muscles. After going through the deep fascia, I come to the second layer of fat, beneath which lies the peritoneum. Before opening this latter serous membrane, I control all bleeding points with catch forceps.

I now pick up the peritoneum with a pair of forceps and gently cut through it, taking care not to wound any stray loop of intestine; now on inserting two fingers in the opening made, I am enabled by means of a pair of blunt-pointed scissors to enlarge the

[1] Delivered at the University Hospital.

wound to the required extent. I am now in the abdominal cavity and there find that in addition to the multiple uterine fibroids, numerous intestinal adhesions by which the left ovary is firmly bound down, and that the tube is the seat of a cyst, which, in spite of all precautions, burst during the process of its removal, emitting a tarry fluid which greatly increases the danger of peritonitis. The ovary, being firmly bound down to the womb, will require some handling to have the adhesions broken loose, and for this reason I have no hesitancy in making the incision larger, so that I can the more easily see what I am doing.

As the pedicle is hard to get at, I secure it with a surgeon's knot, after which the ovary and tube are removed.

Upon examining the right side, I break up many adhesions and find that the right ovary is fastened down by these bands, but not so firmly as was the left organ. It is also diseased, and I shall proceed to tie its pedicle and remove the appendages as I did on the opposite side. As the cyst on the left tube burst during my manipulations and its contents escaped into the peritoneal cavity, I now syringe out the abdomen and keep on repeating this process until the water returns clear and all the fragments of loose tissue and blood clots are floated out. This case is pre-eminently one for a drainage-tube, both on account of the large number of adhesions and the escape of the tarry fluid from the tubal cyst. In other words, this was a bad case, yet it was easy in comparison with some that are done here; as, for instance, it was but a few weeks ago that I performed here in the hospital this same operation upon a patient in whom the disease had existed not for only one year, as in this case, but for twenty-two years. Yet she recovered all right, so that my prognosis in the present case is good, as the adhesions were not so appalling and there was no wound of the intestines, which would have been recognized by the escape of their contents into the cavity of the peritoneum with a consequent perception of fecal odor.

I now thoroughly drain the abdomen of all fluid and proceed to close the incision; before doing this I place a clean sponge in Douglas's pouch, another in the sulcus between the bladder and the womb, and a third (large, broad and flat) over the intestines under the wound to catch the blood that may ooze from the cut surfaces.

Each thread has a needle upon each end—which allows it to be passed from within outwards. Each needle is inserted about a quarter of an inch away from the edge of the wound, and it is well to include in the sutures all the layers of the parieties—cutaneous, muscular, aponeurotic and peritoneal. I would lay especial stress on including the muscular layer, because many ovariotomists think that by so doing, recti muscle abscesses are apt to follow. But it seems to me that it is better to run the risk of a stitch abscess than the more serious and grave one of ventral hernia.

Having inserted all the sutures, I remove the sponges previously placed in the abdomen, and am rejoiced to find that there is but little blood on them; for this tells me that there is scarcely any bleeding either from the sutures or from the abdominal cavity itself. I now count my sponges and instruments, and, as the number is found correct, close the incision, leaving the drainage-tube *in situ*.

My method for closing the wound is by grasping in one hand all the sutures on my side, while my assistant does the same on the opposite side, when the edges of the wound are brought firmly together, and at the same time all the air is expelled from the abdominal cavity. Each suture is now tied with the surgeon's knot. The entire wound, excepting the portion occupied by the drainage-tube, being closed, the ends of the sutures are gathered together and cut off several inches from the knots. After sprinkling iodoform over the wound, especially into and around the umbilicus, I put over it several layers of gauze previously soaked in a 1-2,000 solution of the bichloride of mercury, and next two inches of baked cotton. But, in this instance, the drainage-tube is too long, so I cut an opening immediately over it through the cotton and the gauze, so that the tube, instead of being pressed down on the intestines, protrudes through the opening, and, having secured around it horizontally a small sheet of india rubber, I fix it in position either with safety pins or by passing some of the adhesive rubber strips—which are always used to hold the layers of cotton and gauze in place—close under the nozzle and over this I pin with safety pins the flannel binder smoothly around the abdomen. From this protruding tube the accumulating exudations will be sucked up, at first, every one-half hour and later, every hour or two hours as the case may demand. This is done by the nurse

by means of a special syringe, antiseptically prepared, which is to be thrown away when it ceases to be used in this case.

The drainage-tube will probably be removed in twenty-four hours or certainly in forty-eight hours, and, in the meantime, it will be turned on its horizontal axis by the nurse every 6 to 8 hours, in order to prevent its being sealed to the surrounding tissues by plastic exudations or from its exerting too long a pressure on one spot.

I have sat for hours beside patients in this condition, waiting to decide whether or not to re-open the abdomen and secure bleeding vessels. I spent last Thanksgiving Day, thus occupied, after the removal of a tumor which had been in existence nine years and which weighed ninety-four pounds. Fortunately the patient recovered without any additional operation.

The after-treatment will consist in keeping the patient still, on her back, and without food for twenty-four hours; no opium either, unless the pain becomes too excruciating, which is very rarely the case. The objections to opium are that it checks both secretion and excretion and tends to nauseate. Hot cans will be applied to the body, care being taken that they do not come in too close contact with the skin, as the burns which they make are unusually severe. She will be allowed to see no one for some days but the physician and nurse, as absolute quietness must be observed.

Should obstinate vomiting occur, ice will be given or sinapisms applied to the epigastrium. If there is much flatulence, it will be relieved by inserting a flexible catheter high up into the rectum or by enemata of turpentine, soap and water. As a rule it is necessary to catheterize for a day or so after the operation, but it is to be avoided if possible, as the too-frequent use of that instrument is likely to cause an irritable bladder that is slow to respond to treatment.

On the second day we will give half an ounce of milk every two hours, increasing the quantity gradually as her condition demands. If her temperature should prove high, 101° or over, ice will be applied to the head, the body sponged, a saline cathartic given or some antifebric remedy administered. On the fourth or fifth day the bowels will be freely opened with castor oil or the compound licorice powder purge. If these fail to act they must be supplemented by an enema.

In from a week to eight or nine days, the dressing now put on will be ready to be removed and the stitches taken out. The wound will first be washed with some antiseptic solution, then with alcohol, after which the stitches will be removed, and the abdomen rewashed and dressed as before, but with the addition of adhesive straps over the skin and wound, to strengthen the union already existing. To prevent any possibility of hernia at the site of the wound, the patient is kept in bed from two and a half to three weeks, and then for months has to wear some kind of a close-fitting binder or abdominal supporter. I may state that some ovariotomists are opposed to this long wearing of the binder, one of the principal objectors being Mr. Frederic Treves, a London surgeon, who states that by an over-prolonged use of an abdominal support the parietes are weakened, and thinks that the secret of success in preventing ventral hernia is not to allow the patient to get out of bed too soon—a month or longer not being an unreasonable time.

I will conclude my remarks with a few words upon the subsequent dangers of ovariotomy. Those which are likely to occur are collapse, hemorrhage, septic poisoning and peritonitis.

Collapse usually occurs immediately after or during the operation. The treatment has already been alluded to in sufficient detail. Hemorrhage, when internal, will require the wound to be reopened and the bleeding vessels sought for and tied. Septic poisoning is indicated by a frequent pulse, an elevated temperature, feebleness, mild delirium and, at times, marked chill. The treatment is a brisk saline cathartic and the administration of large doses of quinine. This complication of the case, as a rule, ends fatally. Peritonitis is the greatest cause of the mortality in this operation. The symptoms are well known: a wiry pulse, extreme abdominal tenderness and distention, etc. The prognosis in a case of peritonitis complicating ovariotomy is not usually grave. Saline cathartics, poultices over the abdomen and stimulants are called for, and is the treatment usually pursued.

—Camphorated naphthalin has been recommended by L. Keutmann, the camphor concealing the disagreeable naphthalin odor. It is prepared by melting together the two ingredients in the proportion of one of camphor to four of naphthalin.

DIABETES MELLITUS AND DIABETES INSIPIDUS.—CHRONIC BRIGHT'S DISEASE.

BY JAMES TYSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA; LATE PHYSICIAN TO THE PHILADELPHIA HOSPITAL.

Diabetes Mellitus and Diabetes Insipidus.

Gentlemen: I want to show you first this morning, a case of diabetes mellitus, upon which I delivered a systematic lecture last week. The special reason I have in bringing this patient before you this morning, is to let you see in her case the result of the milk treatment, and to teach you what I regard as its true position. It cannot be regarded as a cure. On the other hand, the glycosuria is often greatly reduced by it. Let me remind you again at the outset, that the milk used should be skimmed milk; exactly why I am unable to say, as fat, which is almost alone removed in the skimming, is usually well assimilated by diabetics.

While this woman was on the milk diet she improved in several particulars: The amount of urine voided decreased daily, although the actual quantity of fluid taken into the system was increased. Thus, before she began the milk diet the amount of urine passed daily increased gradually from three hundred and ninety to four hundred and forty ounces in a week's time. The amount of sugar passed was two and a half per cent., thus averaging over nine ounces; and she was getting worse and worse each day. When she began to take the milk, the amount of urine gradually decreased from four hundred and forty ounces a day to one hundred and two ounces a day. Up to the end of the first week, however, the percentage of sugar increased from two and a half per cent. with the four hundred and forty ounces to five and seventy-five hundredths per cent. with the one hundred and two ounces. Yet, calculating in these two instances the actual amount of sugar passed each day, we find that the quantities were nine ounces before the milk diet as against five ounces with the milk diet; the amount of sugar passed during the week under the milk diet decreasing about thirty-three per cent. or over three ounces. So much for the first week.

Later we find that she passed during the day as little as eighty ounces of urine with only one and sixty one-hundredths per cent. of sugar, thus giving a decided decrease both in the actual and relative amounts of the sugar as well as an actual diminution in the urine voided. Let me here warn you, however, that this fall in the actual amounts of urine and sugar does not take place each day progressively. On some days there was no fall at all in either from the preceding day; on other days the fall was in only one, and in others there was an actual increase, in one or both, over the amounts passed on the day before. Why this was, I am not yet prepared to state fully.

In the meantime while she has been on the milk diet she improved in every respect except her disposition, and in this is the great difficulty with the majority of diabetic patients, namely, that they are unwilling to continue this treatment for an indefinite time.

This being the case, she will have to be put on a diet consisting principally of meat and eggs, together with fruits and vegetables, care being taken to avoid starchy substances as much as possible in the two latter classes. She will also take some medicines, and the combination which I am now mostly using is antipyrin and the bicarbonate of sodium, fifteen grains of the former and thirty of the latter, three times a day, before meals. At the present time the French school is highly recommending antipyrin. I have found it useful in a few cases, especially in combination with the soda, but as yet my experience with them is rather too limited to know exactly what relative value to attach to each one of these remedies in this combination, as the alkalies themselves have long had a reputation in diabetes. As soon as the patient was put on the mixed diet the amount of urine increased from seventy and eighty ounces to as much as one hundred and one hundred and forty ounces a day, the percentage of sugar also ran up. Another point of practical importance is the fact that while under the milk diet and consequently taking more liquid than when on the mixed diet, the amount of urine passed during the twenty-four hours was less. If this fails to be the case, you may put it down to the fact that, from some unexplained reason, the milk diet is a failure in that particular case.

While I am of those who do not believe glucose is a constituent of normal urine, I believe there may be sugar in the urine for a short time and yet the patient not have

diabetes mellitus. In order to prove the presence of diabetes mellitus the urine must be passed in abnormally large amounts and contain sugar continuously. The larger the amount of urine, provided no other real disease of the kidneys be present, the lower will be its specific gravity. This is strikingly shown in hysteria, during the watermelon season, and in some cases of Bright's disease. When the amount of urine ranges from one hundred ounces to ten pints a day, being white in color and of a specific gravity of from 1.001 to 1.004 and the patient has much thirst, but no sugar, we have what is called diabetes insipidus. Though the symptoms in this are not as annoying as in diabetes mellitus, yet the wear and tear on the system caused by the thirst and frequent micturation are enough to make the person thin and nervous. Interstitial nephritis often is marked by its subject passing as much as from sixty to seventy ounces of urine a day, but never the large amount above mentioned.

The pathology of diabetes is not well understood. There is still doubt whether it is a disease of the chylopoietic system or whether it is primarily a disease of the nervous system. It is presumably not a disease of the kidneys as so many suppose. It is well known that puncturing the floor of the fourth ventricle at a certain point will be followed by polyuria and the appearance of sugar, and that the puncture of this same floor of the fourth ventricle two lines above the location of the former puncture will be followed by polyuria, but no sugar. Hence it is agued that the symptom of polyuria, whether or not accompanied with sugar, is the result of a disease of this part of the brain. But the matter is as yet involved in obscurity.

In diabetes insipidus the patient should drink water in moderation, as it is at once useless and unnecessary to keep it away from him. Of drugs, opium, in one form or another, controls the polyuria of diabetes insipidus as it does of diabetes mellitus; but it is not always necessary, and its use should be deferred until the other remedies have been tried. The other remedies now commonly used are ergot and valerian—say from a half to one and a half fluid drachms of fluid extract of ergot, or two to four fluid drachms of the elixir of valerianate of ammonia three times a day after meals. Ergotin, which is simply a concentrated and purified extract, may be used in from three to five-grain doses, and the valerianate of zinc may be given in pill form in lieu of the liquid preparation.

Chronic Bright's Disease.

A systematic lecture was delivered on this case last week. I bring the patient before you to-day, merely to make a few remarks on the pathology of Bright's disease, and the differentiation of the different varieties from each other. I shall not attempt to fully go over her symptoms; because you remember that her history was imperfect—a fact that is often found in persons of the lower class—and also because you will recall that at the time of her admission her mind was not clear, probably because of beginning uremia. She had scarlet fever some years ago, and has been troubled with winter cough for some years. A week before her admission she took cold, but did not think anything of it. She went to bed and awoke the next morning having become suddenly blind. A symptom like this should always make you examine the urine, and this was done as soon as she was brought to the hospital. It was found to be full of albumin; but there was no dropsy, and no tube casts were found. Dr. de Schweinitz examined the patient's eyes and found that there was albuminuric retinitis present. Since then she has not done well, though she has been in bed and every care has been taken. Her symptoms point to the fact that she has had this disease for a long time and that this sudden exacerbation of her condition is a premonition that the end is near. The absence of casts in the urine does not lessen the gravity of the case. On the other hand, it is a reason for fresh anxiety. They may be retained in the uriniferous tubules, increasing the difficulty of secretion. In cases of this kind I have found at the autopsy the tubules literally packed with hyaline, waxy and epithelial casts. Although the presence of albumin in urine is justly regarded as a much less serious symptom than formerly, I think it may be said that urine containing a large quantity of albumin, not due to pus or blood, may be said to mean Bright's disease, even if no casts are found.

The different kinds of chronic nephritis are distinguished from one another by the general symptoms as well as by the chemical and microscopical characters of the urine. Much albumin points to parenchymatous nephritis. Slight albuminuria and polyurea are generally associated with chronic inter-

stitial nephritis. In the former disease when sudden blindness occurs it is generally the result of an amaurosis, caused by a sudden uremia, and the person may recover; but when the blindness comes on slowly even although it may be suddenly increased, as in this case, it is more apt to be due to the choked disc of chronic interstitial disease, and, as a rule, indicates that the end is not far off. Again, hypertrophy of the left ventricle may be present in both the parenchymatous and the interstitial varieties of the disease, but in the former it occurs late. In the latter it is, by some, regarded as a part of an affection of the vascular system, shared by heart and kidneys alike. In this case the hypertrophy is pronounced. There is absolute dulness up to the third interspace on the left side of the sternum, with neither pericarditis nor valvular disease. In the absence of valvular disease we have additional proof that the disease is chronic interstitial nephritis.

It is said that this cardiac enlargement in chronic Bright's disease may be due to one of several causes. Some maintain that it is due to the increased resistance which the heart has to encounter in driving the blood through the contracted kidney. But when we consider the smallness of the kidneys as compared with the whole area of the circulation, and how far they are from the seat of circulation, this does not seem reasonable. Further, ligation of the renal arteries is found to produce but temporary increased intra-vascular pressure. Again, cardiac hypertrophy associated with a hypertrophy of the middle or muscular coat of the arterial wall is said to be brought about by the increased effort on the part of the arterial walls to shut out from the portions of the body under their protection the blood which is poisoned by matters which the diseased kidneys fail to eliminate, and that as the nephritis increases and the amount of poison accumulates, the thickening increases. The heart tries to overcome this resistance against which the vessels react, and thus the two hypertrophies increase each other. The next theory is more recent and has been alluded to. It is that interstitial nephritis is not a disease of the kidneys, but of the whole vascular system, in which the kidneys bear merely their part of the general trouble. The advocates of this theory maintain that the blood-vessels are the seat of an inflammatory change, constituting an endarteritis which causes an exudation and later an atheroma of the blood-vessel walls; that this affects the kidney no more than the rest of the arterial system, of which the heart is also a part. This theory, while it explains the overgrowth of the inner coat of the blood-vessels, does not explain the muscular hypertrophy. To meet this, it is claimed that the thickening of the vessel walls is not due to the thickening of the middle, or muscular, coat, but rather to a thickening of the inner coat, which in reality makes them weaker than before; so that in this form of Bright's disease we are apt to meet with hemorrhages from the rectum, nose and other mucous membranes, as well as with miliary aneurisms and attacks of apoplexy, which is undoubtedly a fact. But the fact also remains that there does constantly occur hypertrophy of the muscular coat, although there is also endarteritis.

The inflammation of the blood-vessel walls is easily explained by the irritating presence primarily of blood charged with alcohol, lead, the poison of syphilis, and even rich and irritating foods highly charged with nitrogen, as well as secondarily by poisonous and effete materials, that the kidney ought to remove. It is consequently a part of the morbid anatomy of gout, as is also interstitial nephritis. It may occur also from lead poisoning.

COMMUNICATIONS.

COMPOUND FRACTURES AND THEIR TREATMENT.[1]

BY W. L. BUECHNER, M. D.,

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A few years ago compound fractures of the long bones were considered very serious injuries, the mortality in such cases often being alarming. Aseptic surgery has brought a change. Gangrene, traumatic erysipelas, pyemia, and even secondary hemorrhage formerly following such injuries so frequently, have almost become things of the past.

To Professor Richard von Volkmann belongs the credit of having brought the treatment of compound fractures nearly to perfection. In 1886, while visiting his clinic, I found his statistics showing 300

[1] Read before National Association of Railway Surgeons, May, 1890.

cases of such injuries without a single death from sepsis. To obtain such favorable results it is absolutely necessary to pay the closest attention to the first dressing, for on it depends the fate of the limb and probably the life of the patient. The injured limb should first be washed with soap and water and cleanly shaved, and then washed with a solution of carbolic acid (five per cent.) or bichloride of mercury (1-1,000). If necessary the wound should then be sufficiently dilated with the knife, to admit easily the index finger, which being introduced, the wound is washed out under a stream of carbolized water, and every recess which may have formed in the soft parts cleansed; long pockets should be incised at the lowest point to admit of free drainage; small incisions should be made to wash everything out thoroughly, and no blood coagulum should be permitted to remain; every loose piece of bone should be carefully removed, only those adherent to periosteum should be left, and retained in their position, if necessary, by wire screws or nails. Should the end of a fragment be very sharp so as to interfere with the reduction of the fracture, or should it show any disposition to perforate any muscular structures, it should at once be removed with the bone forceps, or saw; for this purpose it can easily be brought out of the wound by gentle bending of the limb. Should any pieces of bone lie under the fragments, or should any pockets in the torn muscular structures be found, the fragments may be turned out of the wound, and everything cleaned out with the utmost precision. Muscular fibres, so frequently found between the fragments, should be carefully removed, as they retard consolidation and are often the cause of false joints. Pieces of integument and portions of muscular structures which are crushed beyond a possibility of saving, should be removed with the scissors; the whole wound is then to be washed out again with a stream of carbolized water, then the drainage-tubes are introduced and it is better to use numerous short ones than only a few long ones. Where any incisions are made through torn loose integument, the drainage-tubes should only be ¼–½ inch long. Every incision is then closely stitched up to the drainage-tube. In the same way the whole wound should be closed, if possible; the drainage-tubes in the main wound should go down to the bone, but never between the fragments. All drains are cut off at a level with the surface, and to prevent their slipping back are held by silk being attached to them, or by simply transfixing the end of the tube with a pin. The limb is then held by some assistants in the lowest position, to have the needed extension and counter-extension. The wound is then thoroughly irrigated with a solution of bichloride of mercury (1-1,000) then with flatly laid-on hands all superfluous blood is squeezed out of the wound, and only enough of it left to fill the crevices between the fragments and the spaces between torn soft parts, and the rest of the wound that cannot be closed by sutures. These layers of blood should never be disturbed. They close all the parts together and in course of time become organized. No fistulous openings should ever be found afterwards going down to the fragments and even considerable pressure should not bring any secretions from the deeper parts of the wound. The wound and its surroundings are then covered with many layers of iodoform or sublimated gauze, either being very serviceable in absorbing all secretions. The gauze is then covered with light cushions filled with moss or oakum and the whole dressing held in position by roller bandages made of crinoline, dipped in a 3 per cent. solution of carbolic acid. The bandages are applied so that at least three thicknesses will cover the dressing. In all severe cases with numerous drainage-tubes and incisions the dressing should be changed every four or five days to see if everything is in position and doing well. The second dressing is applied the same way as the first. Afterwards the dressings are changed only every eight days. As soon as the wound is not secreting any more, the drainage-tubes are removed; this can frequently be done at the second dressing. By this time the wound, where it could not be entirely closed by stitches, should be found covered with a darkened, moist but solid coagulum, or a peculiar glassy exudation. Every examination of the wound by probe or finger, all washing out or other interference, should be strictly avoided. The fractured bones should never be exposed again after the first dressing and nowhere is meddlesome surgery more out of place than here. Should we find, after the removal of the first dressing, that the fracture is not covered with fine blood coagula, it would be well to scarify the edges of the wound, to furnish in that way the necessary cover. The dressing should be applied rather tightly to bring all torn muscular

fibres into close contact with one another. The blood will close them together and they will heal by first intention. Should, at the time of dressing, some secretion appear on the surface, it should be carefully wiped up with carbolized cotton. There should not be a drop of pus, the secretion simply consisting of a somewhat gelatinous serum. The dressing should be continued in the same manner till the wound is entirely healed.

It sometimes happens that small pieces of necrosed bone will be thrown off, but that will not cause any complications, as they are generally very superficial. Those lying deeper in the wound are frequently absorbed without any disturbance. Has any metallic substance been used to keep the fragments in their proper position, it may safely be left in the wound till the fragments are united, it will become loose and can be extracted without difficulty, although the wound closes frequently entirely over it, and a small incision may be necessary for its removal. To give the fractured limb the necessary support and steadiness, splints should be applied. Heavy tin is preferred by von Volkmann for that purpose, but other material or plaster of Paris may be used according to the preference of the attending surgeon. I use the tin splint for all fractures at first. In simple fractures a plaster dressing is applied about the eighth day; in compound fractures as soon as the flesh-wounds become small enough to be treated through the windows of a plaster dressing. The dressing should always immobolize the joints above and below the fracture; and then the patient should be compelled to put at least a part of his weight upon the limb, and the results will be more uniformly good in less time than when the patient is not allowed to bear any weight on the limb. I never had occasion to regret the above-described treatment, and a case, coming under my observation, seems to me to prove its correctness.

The patient, W. L., a brakeman, had sustained, in a collision, a simple fracture of the right leg, and a compound fracture of the left leg. The compound fracture was treated according to rules laid down in this paper, and the limb placed in a tin splint. In eleven days the wounds of the soft parts were completely healed and a plaster of Paris dressing applied. In eight weeks the dressing was removed. No callus had formed at the site of the fracture of the left leg (there was only a ligamentous union) and the fragments of the bone were movable. Another plaster dressing was applied and the patient ordered to walk around and bear some weight on the limb. He soon complained about some soreness at the site of the fracture, which gradually subsided, and when in six weeks the dressing was taken off, a good callus had formed, the bones were firmly united, and the man has two good legs to-day.

THE ELECTRICAL TREATMENT OF SALPINGITIS AND ALLIED CONDITIONS.

BY G. BETTON MASSEY, M. D.,

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Before offering what I have to say on the electrical treatment of salpingitis, there are certain preliminary statements, relative to this disease and its treatment, that are forced upon me by the extravagant position of certain members of the profession.

I wish first to affirm that there is no evidence that justifies the assumption that this condition is a dangerous one. In neither stage of its existence, from the catarrhal inflammation that has involved the mucous membrane only slightly, to the hypertrophied and distended tube filled with mucopurulent material, is there a menace to the life of the individual. The statement is made by those who resort freely to capital operations, that a woman with such an accumulation within her is in danger of rupture and death from peritonitis. In answer to this I will quote a few sentences from a recent lecture[1] by Dr. Morris Longstreth, one of the physicians to the Pennsylvania Hospital. "This specimen [a cystic tube] illustrates what I believe is the end to which all of these inflamed Fallopian tubes would come if they were let alone. The active inflammation closes the openings of the tube, and lymph and pus are thrown out into the tube and accumulate there. When the tube becomes full, the blood supply is interfered with from the pressure within the tube, the thick product undergoes a mucoid degeneration, and a large cystic tube is produced, larger than it was when the pus was in it. In tubes like these, which have become wholly cystic, and in those in which sup-

[1] MEDICAL AND SURGICAL REPORTER, May 3, 1890.

puration is still going on, microscopic examination reveals that they are not pus cavities, as is claimed by some gynecologists, but that they are lined with perfectly healthy mucous membrane, lined in many cases with columnar cells. Therefore this process is not a true suppuration. Many gynecologists remove these tubes, urging as their reason for so doing that there is great danger that the inflammation will spread from the tube and reach the peritoneum, and there light up an inflammation which will produce certain and speedy death. This would be true were the process in the tube a true suppuration; but it is not, and there is no such danger to be dreaded. The records of this hospital for twenty years past do not show any death from the bursting of these suppurating tubes, or from peritonitis arising from this condition."

Such is the statement of the pathologist of one of the most active hospitals in America. I am convinced that those who have formed a different opinion as to the danger of "pus tubes" have permitted themselves to mistake pelvic abscesses arising in the connective tissue for intra-tubal collections. The assumption now common that all pelvic abscesses are tubal in origin involves a complete disregard of the existence of lymphatic vessels and glands in the pelvis. I cannot believe that these absorbing and draining vessels fail in this region to perform the duties discharged by them in other parts of the body; and there can be no question that many abscesses arising in a poisoned and softened gland have been incorrectly attributed to the tubes. In a conversation recently, Dr. Formad, the well-known pathologist and coroner's physician, of Philadelphia, admitted to me that a considerable proportion of the cases of this nature seen by him *post-mortem*, showed signs of having originated outside the tubes. True abscesses of this nature are of course dangerous and necessitate surgical intervention. They have nothing in common with the distended tube, and it is my belief that they may be largely differentiated from them by attention to the temperature. Eliminating the cases of pelvic abscess, then, from those presenting distended Fallopian tubes, it will be seen that a condition is left in which it is safe for the physician to attempt to restore the functions of the part before consigning the patient to the dangers and uncertainties of an abdominal section and the limbo of a neutral sex for the remainder of her life.

The advocates of early operation, again, have placed themselves in an awkward position by dwelling also on the difficulties in the way of exact diagnosis. The two positions seem to me incompatible; but that the operative furore leads to such discoveries of diagnostic errors there can be no doubt. I have myself seen patients from whom ovaries had been removed for colitis, lateral spinal sclerosis, spinal meningitis, locomotor ataxia, gummata of the spinal canal, neuralgia, neurasthenia, Basedow's disease, and a host of other nervous affections; the condition of the patients subsequent to such unwarrantable mutilations being of course most deplorable.

If it is true that we cannot diagnosticate this disease with accuracy, we should, in justice to the patient, adopt a line of treatment suited to all the conditions that cannot be excluded; and while it has been my experience that electrical treatment is more effective in the inflammatory troubles than in the nervous affections mentioned, in none of them is it contra-indicated, and in many it may be either curative or beneficial.

In considering the methods by which a salpingitis may be cured we should examine somewhat into the nature of the process that results in a simple catarrh of patulous tubes, or in the muco-purulent collections that form when the tubal extremities are occluded. It may be taken for granted that no case of catarrhal salpingitis arises within the tubes *de novo*. All such inflammations ascend along the mucous tracts, and before the salpingitis we necessarily have an endometritis. Adopting the same order in our curative effort, we should first aim to subdue the active or latent endometrical inflammation, initiating thus a reparative process which will extend upwards of itself. This, at least, seems to be the explanation of some typical results that I have recently had, in which negative Galvanic applications to the uterine cavity were followed by discharges of pus from pus tubes and subsequent normal pregnancies.

To accomplish this result requires some circumspection, as it is well known that intra-uterine applications are apt to relight the slumbering fires of even sub-acute conditions, and it is my practice to temper such conditions first by negative vaginal applications, 25 to 60 milliampères, before employing the intra-uterine treatment. The intra-uterine dosage should begin with 10 milliampères, to be subsequently increased if necessary. If the salpingitis is of the kind that is more

properly called a salpingo-ovaritis, presenting great tenderness in the region of the appendages and an accentuation of the normal outlines of the pelvic contents, but without definite sign of uterine catarrh, the treatment should not be extended beyond the vaginal variety, and will almost invariably meet with the happiest results.

One case of success of this nature is worth many cases of success after ablation of the parts. For the details of two cases followed by normal pregnancies I refer to a paper in the *Annals of Gynecology*, February, 1890. Numerous other cases may be cited, as it is my experience that at least fifty per cent. of such tubes may be made patulous by producing resolution in the inflamed mucous membrane. Whether or not such a proportion will remain free from subsequent attacks, depends entirely upon the observance or neglect of hygienic regulations that are often difficult to enforce.

In cases in which caution is advisable in the intra-uterine applications I have found that less immediate irritation followed when the electrode was not passed quite to the fundus, being inserted but one and a half inches or two inches. Mild purgation, seclusion, and rest are important adjuncts to the treatment; and in no distinctly local disease are the approved methods of treating neurasthenia more applicable as a help.

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DRUNKENNESS A SYMPTOM OF DISEASE: NOT A HABIT OR A DISEASE PER SE.

BY D. H. MOUNT, M. D.,
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Some observations as to the causes of intemperance have led me to believe that drunkenness is not a habit, but is caused by either of two things: a love of convivial habits and the companionship of those of like tastes, or some derangement of the system, most generally of the organs of digestion; and in the latter case is a symptom of a disease, which, like neuralgia, can often be cured if the disease which causes it can be reached.

Dr. J. C. Wilson makes the following four grand divisions of alcoholism:

1. Acute alcoholism.
2. Chronic alcoholism.
3. Hereditary alcoholism.
4. Dipsomania,

with numerous sub-divisions, but for practical purposes suppose we call them all by the broad, plain terms, drunkenness of the convivial man and of the chronic drunkard.

How often do we hear it said of a man, "He is a good workman, but he will occasionally have his sprees, which last for two or three days and then he will be all right again." Can there be any habit in this? A habit which is irresistible is something that is indulged in much more frequently and with much more regularity than the ambiguous word occasionally would express. Now it is a fact that, as the years roll on, these occasional sprees are more apt than not to become more and more frequent until at last it gets to become one continuous "occasionally."

Now, what is the reason for this occasional spree? Here is a man who is a good workman, a good salesman, or a good minister of the gospel, is it reasonable to think that this man deliberately and intentionally throws away his chances in life, is it reasonable to think that this man makes himself miserable from choice? Is it not more reasonable to think that there is some power over which he has no control which impels him to drink to intoxication day after day?

Old miners who are miles away from any place where intoxicants can be had, say that when they are feeling badly and can't eat, nothing does so much good as to go to the nearest town and "blow it out," that is, get very drunk for a day or two.

What is the explanation of this? Is it possible that in their case the liver has become sluggish and that the vomiting and purging which they bring on by their overdoses of alcohol really does give them the "cleaning out" which they speak of, and set things moving again until the next attack comes on? And would some remedy acting on the liver do the same work in a shorter time and quite as effectually as the spree?

But you will say, all these bad symptoms which the miner complains of are present in the confirmed drunkard, and so they are, but we all know that in taking any medicine, especially in chronic diseases, the poison line shifts and the dose has to be increased constantly until at last the remedy fails entirely and something new has to be tried.

Could not this, too, be true of the drunkard who, unconsciously, at first employed a

remedy for a disease which, in the course of time, has become less and less efficacious until at last it fails him entirely and he is not comfortable unless under the influence of alcohol and finally sinks into the so-called drunkard's grave?

If this is true, could not the disease which causes the drunkenness be reached by some remedy, and as the symptom neuralgia is often cured by the removal of a tumor or by attacking the disease which causes the neuralgia, so drunkenness be cured by attacking the disease which causes it?

That drunkenness is hereditary in some families is, I think, generally admitted. Some young men seem to take to intoxicants from the first as their fathers did before them, but so do some young men seem to develop consumption as their fathers did before them. Some families seem to have in them the curse of one kind of hereditary disease and some another kind.

At times a whole generation may escape the dread disease, only to have it break out in the one following, and as families in which consumption is hereditary should use great care to prevent the disease from appearing, just so families where drunkenness is hereditary should teach their children, from the first, the danger to which they are liable. The great trouble is that as many people have searched for a cure for neuralgia and not the disease which caused the neuralgia, so doctors have sought a remedy for drunkenness without taking into account the disease which causes it.

In considering the subject, the convivial drinker must be left out of the question entirely. He drinks because he thinks it a great pleasure; he is perfectly healthy and would probably not drink anything could he find no companions to drink and talk with.

To be sure, his organs of digestion may give out at any time as any one else's might, and he, too, may drift into the remedy rather unconsciously and in the end drink for a far different reason from what he did in the first place; and this, too, I consider a good argument that drunkenness is a symptom of disease, because the convivial man hates the sight of an habitual drunkard.

The two men are as different as day is from night and there can be little similarity between them. The drunkard is seldom or never from under the influence of alcohol, whilst the convivial man goes off for a day's fishing or to the races and has a "good time," gets "drunk as a lord" because somebody else got drunk, talks it all over the next morning as to who was the drunkest the night before, and then goes home and about his business until he meets with another crowd bent on having "a good time."

The drunkard is far different. He drinks because it makes him feel better. He is not apt to be jolly; on the contrary, he is apt to be ugly towards those around him, or he is quarrelsome or may be stupid and say nothing. The drunkard is generally miserable, so miserable that he often blows his brains out or in some other way makes way with himself, because being sane he knows his condition, but after frequent trials knows that he cannot stop drinking. This is the man of whom I would speak; this is the man whom I claim needs the care of the doctor.

The drunkard has always been and is now shunned by the general practitioner, who tells him, when he is consulted, to "stop drinking," and then shoves him aside because he looks on him as loathsome. Just as well might the doctor treat the syphilitic patient or the small-pox patient in the same manner, were it not that small-pox is a recognized disease which is understood and has been thoroughly studied, whilst alcoholism has been comparatively neglected.

Another and by no means a small cause for intemperance is the quality of the liquor sold. From the debauch on one grade of liquor a man may awaken the next morning feeling in a comparatively good condition, whilst a spree on a poorer article makes him feel wretched and leads him to drink more of the same stuff in his efforts to "brace up" and make himself comfortable. Drs. Dujardin-Beaumetz and Andigé, in their report to the Institute of their researches on chronic alcoholism during 1879–1883, say that among the pigs with which they experimented the action of the impure alcohol was much more rapid and deleterious than from rectified alcohol. For this cause of intemperance the Prohibitionists are undoubtedly responsible in a very great measure, because he who desires a drink of alcohol will get it in one way or another, law or no law, and where the risk of selling is the greatest, there the newest and poorest liquor is invariably sold, hence the effect produced is much worse than in places where competition compels the seller to supply a comparatively good article.

If half the energy displayed by these exceedingly well-meaning people, whom I greatly respect, in trying to do a thing which they have not been able to accomplish after years of trial, and certainly in Maine have made matters far worse for the reason that I have mentioned—if even a small part of their energy could be devoted to the proper government of the traffic many of the saloons might be abolished and a better article sold to the consumer. As it is now too much encouragement is given to men to go into the traffic.

The seller can buy a gallon of whiskey for, say, 85 cents; this gallon, I am told, will average about 144 drinks, to say nothing of the water which he may add to the original gallon. One hundred and forty-four drinks at 10 cents a drink is equal to $14.40, a profit of $13.55, therefore if the seller has only fifteen customers a day he will be making as much as if he worked by the day's work, provided the workingman can get work every day.

This the Prohibitionist could remedy by making the business less profitable, which could be done as follows:

Let there be inspectors of all places where liquors are sold, appointed after the manner of revenue inspectors, whose duties it shall be to procure samples of the liquors sold in the different places and see if they are up to a certain standard, which might be fixed; the liquor to be sold by measure at a price fixed by the government. By regulating the quality, the quantity and the price, the business of selling would then become one in which there would be no more profit than any other retail business; and, as the occupation is by no means a pleasant one, fewer men would be induced to enter in it. But the chief benefit would be in the effect on the consumer which, as previously claimed, would be far different than where the new article is supplied.

M. Lancereaux, before the Académie de Medicine, November, 1885, after showing that alcoholics come chiefly from districts where wine is not produced, proposed the national adoption of the following measures:

1. Absolute liberty in the sale of cider, beer and wine, on condition that they are of good quality and unadulterated.

2. Government supervision of the manufacture of spirits of all kinds and the granting of prizes for methods of diminishing their ill effects.

3. The imposition of the highest practicable tax upon spirituous drinks and an insistance upon both the good moral character, and a severe license in the case of liquor dealers.

4. The punishment of those found in the state of intoxication and the establishment of refuges for those who cannot abstain from the abuse of strong liquors.

In this country high license is being tried, but this still leaves the consumer unprotected and, because of the temptation of the seller to keep an inferior grade of liquor to counterbalance the high rate of the license, is rather conducive to intemperance than a preventive.

Of the reformed drunkard, so-called, I think it may safely be said there are none where the predisposing cause still exists. One of the worst cases of alcoholism I have ever been called on to treat, was in a man who had abstained from intoxicants for four years. In his case the cause, a bad, irritable stomach and a sluggish liver, had returned and brought with it the old irresistible craving for liquor. The reformed drunkard may point to his improved condition, etc., but if you look into the matter I think you will find that the reform began at a time when the conditions were changed. Cures of drunkenness have been reported, many of them, among which the administration of strychnine plays an important part, but I do not think that any specific will ever be found, rather would I believe that more attention will be given in the future as to what makes a man drink when he knows that it is for his best interests not to drink.

The disease theory of drunkenness dates back from the second century, when the Roman Ulpian urged the treatment of inebriates as sick and diseased. In 1747 Condillac, of France, urged the provision of hospitals. Since then many other eminent men, among them Drs. Rush, of Philadelphia, and Esquirol, of France, have urged the same thing.

The mention of the theory, however, has always roused such intense feeling that comparatively little has ever been done.

The following statistics by Baer, of Berlin, obtained from observations in England and Germany, comparing the years of life to be expected by persons of various ages, who were not handlers of alcohol, with the years of life remaining to those who used alcohol constantly, may be of interest.

Non-handlers of alcohol aged

From 25 years	had before them	32.08	years
" 35	" "	25.92	"
" 45	" "	19.92	"
" 55	" "	14.45	"
" 65	" "	9.72	"

Those who constantly had to do with alcohol had a future of

From 25 years	of age	26.23	years
" 35	"	20.01	"
" 45	"	15.19	"
" 55	"	11.16	"
" 65	"	8.04	"

These statistics might be somewhat changed were small-pox or any other disease neglected or looked on as alcoholism is by most people.

In conclusion, let me again call the reader's attention to the fact that it is not for the benefit of the convivial drunkard that this is written, but for the poor, miserable man who sees his business drifting from him, day by day, without his being able to stem the current and who would help himself if he could, but has not the ability to do so. To this man I think the doctor can do good.

Foreign Correspondence.

LONDON LETTER.

Effect of Hospitals on Standard of Health.—Curious Delusion.—Vaccinating by Machinery.—Effect of Summer on Medical Work.—Tait's Operation for Lacerated Perineum.—Inflammable Gas in the Stomach.

The hospital controversy brings forward prominently the extensive provision that modern society makes for the fostering of its incapables. There can be no doubt that the health standard of the race is materially lowered by the system of dwelling in towns. The smoke-laden air, unhealthy occupations and insanitary dwellings combine with dissipation and over-pressure to sap the strength of the population. The lives of those who are thus crippled in the struggle for existence, however, are artificially preserved by a far-reaching organization that sweeps the disabled of all sorts and conditions into its net. Skilful medical treatment, on a large and elaborate scale, is provided for the cripples, the imbeciles, the insane and for all sufferers from sickness or accident. That this excessive aid has an ultimate ill-effect in levelling down the national standard of health is more than probable, for the patched-up folks are free to marry and add their unhealthy offspring to the sum total. The remedy to the situation is tolerably clear to the political economist, but when an ordinary citizen comes to inquire into the question it is found to be hedged in with apparently insurmountable difficulties. Sentiments and prejudices, the outcome of long ages of social evolution, are, fortunately for ourselves, slow in yielding their ground. Most thinking men who have ventured to give utterance to their ideas seem to agree that eventually the question of limitation of marriages—at any rate, amongst unhealthy people—will have to be dealt with by the State. The mere increase in numbers will one day render some step in this direction an absolute necessity. Meanwhile the problem is not only difficult but is of such a delicate nature that few public men care to approach it. One point can hardly fail to appeal to the common sense of all classes of the community, and that is the extreme inadvisibility of allowing lunatics to leave their asylums and marry during their remissions, thus keeping up constant additions to a most undesirable breed.

A curious case of mental delusion lately came under the present writer's notice. The patient, a middle-aged man who had formerly been in good circumstances, was visited by an out-door medical officer of the Poor Law relief. When asked what he was complaining of, the patient replied, "Weeds, sir, weeds in the bladder," and pointed out three bottles on the bed-room mantelpiece. On inspection these were found to contain chopped water-cress, hair, feathers and other foreign material. Falling in with the humor of the position, the doctor mildly remarked that the poor man appeared to have not only a water-cress bed but several fowls and a hair mattress concealed somewhere within his internal economy. At this seeming slur upon her husband's veracity, the wife left the room in high dudgeon, for she, at any rate, was a firm believer in the extraordinary symptoms. The doctor then expressed a wish to see some of the offending material actually voided. The patient at once assented, but first crossed the room to get a large sponge of warm water, saying that was a necessary accompaniment of the proceeding. That was of course sufficient

proof of the malingering and the man was sent on to the hospital, whither he took several specimen bottles. He was kept in bed and watched for several days, when his urine, as might be expected, was found clear. Nothing, however, could shake his faith in the theory of the existence of the vesical weeds, and he was discharged, as his clinical condition hardly warranted further occupation of valuable bed-space.

The ways and means of modern surgery have been wonderfully extended of late. A good surgeon cannot have too wide an acquaintance with the physical qualities of the materials that surround him. Nor can he fail to benefit from a knowledge of advances in mechanical contrivances. A short while ago your correspondent saw an ingenious little instrument for vaccination introduced by Mr. Jordan Lloyd, of Birmingham, one of the vice-presidents of the British Medical Association. The instrument is simplicity itself, consisting, as it does, of nothing more than an American chuck-drill, costing a few pence, and fitted with a common sewing needle. When the operation is needed a drop of vaccine matter is blown on to the arm, a few scratches made and *hey presto!* the thing is over before the child has made up its mind to cry. One great point is the extreme ease with which the needle can be cleansed or renewed. Speaking broadly, simplicity is desirable in all things surgical. Many a surgeon would find it worth his while to follow Mr. Lloyd in availing himself of transatlantic ingenuity to add to his manipulative resources.

The summer months are somewhat of a dull time for the medical world, that is, from a scientific point of view, however busy it may be over professional work. The medical and the clinical societies have closed for the time, and the Royal Medical and Chirurgical will shortly follow suit. The same applies to the various provincial associations, which have for the most part closed their doors until next winter. Meanwhile, there is a surcease in the flow of articles that have for months past been flooding the journals. There is every reason to believe, however, that the accummulation is still going on, and that the accustomed deluge will break forth at the British Medical Association in August. It is difficult to imagine what would happen were all the pent-up literary energies of our learned profession not supplied with some such safety valve.

Surgeons all over the country are adopting Lawson Tait's operation for ruptured perineum. The results are excellent. So far from there being any loss of substance the patient is provided with a good substantial perineum and in favorable cases with a vaginal orifice of small size. The operation can be done rapidly, and its main points may be briefly described as follows. The first step is to run a scissors transversely along between the rectum and perineum, splitting what is left of the septum. At each end of this cross-incision two others are carried backwards and two more forwards, the latter being close to the margin of the ruptured surfaces. The incisions might be shown in diagram by the capital letter "H," with two short legs on the anus side of the cross bar. At this stage the wound gapes and a raw surface is left which has somewhat the shape of a skate's egg. Silkworm-gut stitches are now passed deeply in such a manner that they pierce nothing but raw surfaces. This done the two opposing halves of the wound are brought together. Superficial skin stitches complete the operation. In cases where the original deficiency was associated with prolapse of the uterus the new artificial perineum acts as a kind of natural pessary. Mr. Tait claims that his plastic perineum will stand the strain of further labors. That is undoubtedly true in some instances, but in one case at least known to the writer the new organ gave way at the next confinement.

One of those strange cases where inflammable gas is given off from the stomach has just been reported from Manchester. The patient was an operative suffering from chronic gastric trouble, and in the first place set fire to an eructation when striking a match to see the time in the early morning. The combustion seems to be due to the presence of hydrogen and of marsh gas, as the product of the butyric fermentation. An organic lesion was present in this case in the shape of stenosis of the pylorus. D. W.

Typhoid Fever.—A. Wiltschour, of St. Petersburg, examined, in 28 cases, the stools of typhoid patients. He never found the specific bacilli earlier than the tenth day, after which date it was almost constantly present in the proportion of 1 to 25 or 30 of the other bacteria. In 35 cases when the blood was examined microscopically and by cultivation methods the characteristic bacillus was found once on the eighth day.

PERISCOPE.

The Hydrophobia Epidemic in New York.

An editorial in the *N. Y. Medical Record*, July 5, 1890, says:

One needs to be but a very casual and careless reader of the daily papers to have had impressed upon his mind the fact that reports of cases of hydrophobia in man and beast are becoming alarmingly frequent. Dogs, horses, pigs, cats, men, women and children, all over the country, are falling victims to the dread disease—if the newspapers are to be credited. Rabies has always existed in the world; indeed, one of the earliest terrors that appeals to the vivid imagination of the young child is that inspired by nursery tales of mad dogs, and many a timid girl, whose fears have been excited by these wicked stories, has been thrown into convulsions at the sight of a playful dog making friendly advances towards her. But the season for the nursery form of the disease, if we may so designate it, was always summer—the "dog days" being very appropriately selected as the time best fitted for the production of the malady, and the winter and spring were periods of safety. The present epidemic, however, has had no regard for tradition, but began early in the spring, or rather, late in the winter, and has steadily increased, regardless of meteorological conditions, since the establishment of the Pasteur institute. It is a curious fact that, in France and elsewhere, the prevalence of rabies has seemed to be closely dependent upon the rise of Pasteur institutes, and the more the institutes flourish the more numerous become the cases of hydrophobia among the community at large. Leaving aside the question of the existence of such a disease as hydrophobia, and whether, if it do exist, it may be prevented by Pasteur's method; or even admitting freely both these as actual and undisputed facts, it may well be asked how much the community gains by the creation in it of an institution for the treatment by preventive inoculations of rabies. Is the sum of human misery thereby diminished or is it increased? Of course, the widest publicity is essential to the success of such an undertaking. People cannot avail themselves of a good thing unless they know of its existence, and they can never know of it so quickly as when they are informed through the medium of the daily press. Consequently, hardly a day passes that the papers do not contain accounts of alleged mad dogs, and of the setting out of their victims on a pilgrimage to the branch Mecca of Pasteurism in New York City. What is the effect of all this publicity? Can any one doubt that it is to create needless alarm in many minds? Admitting the existence of hydrophobia as a distinct and well-defined disease, it is certainly one of exceeding rarity, and one may pass through a long professional life without seeing a single case in which the symptoms would suggest rabies. Yet, within the past six months we have heard of nothing so frequently as of hydrophobia. If our country were as thickly populated with abandoned curs as is the city of Constantinople itself (where, by the way, hydrophobia is said not to be recognized), we could not expect to have more cases of the disease than we are told that we have now. It cannot be doubted that many, if not all, of these cases are instances simply of fright, and that of those treated by preventive inoculations, so-called, not one in ten, at a very high estimate, is in the slightest danger of acquiring hydrophobia. The rest, and thousands of other people throughout the country, are simply frightened nearly to death. We have nothing against the Pasteur institute in this city, nor against the gentleman who has charge of it, and we believe that he is inspired with the highest motives and with a desire to popularize a method which he thinks will be of the greatest benefit to humanity; we will not argue as to the method itself, whether it accomplishes what is claimed for it or not; but we are firmly convinced that the establishment of such an institute in this country, with the popular agitation on the subject of hydrophobia to which it has given rise, is unfortunate, and has already been productive of an incalculable amount of mental anguish in those who may have been bitten by dogs, but who would never have given their simple wounds a second thought were it not for this newspaper notoriety.

Statistics of Cures by Hypnotism.

The methods and purposes of the clinic for the treatment of diseases by hypnotism, founded at Amsterdam by Drs. van Reuterghem and van Eeden are well known. On the occasion of completing the first two years of their experience, they have put

together an account of the kind and number of diseases treated, and the amount of success achieved; and these statistics, being comparatively extensive and carefully collected, have good claims to general consideration. There were treated, in all, 414 patients (219 men and 195 women). Of these, only 15 (less than 4 per cent.) could not be hypnotized; 217 (53 per cent.) entered a light stage of sleep; 135 (32 per cent.) entered a deeper stage; and 47 (11 per cent.) entered the somnambulic stage, characteristic of the best hypnotic subjects. The ages of the patients were distributed as follows: from 1 to 10 years, 9; from 11 to 20 years, 46; from 21 to 40 years, 203; from 41 to 60 years, 131; from 61 to 80 years, 25. There were 361 of the 414 afflicted with various kinds of nervous troubles, 168 were classed as general neuropathic disorders, 68 as neuralgias and pains, 60 as mental diseases, 40 as hysterical affections and 29 as organic affections. In general, the effects of the treatment are indicated by the following figures; no effect in 71 cases (20 per cent.), a slight or passing improvement in 92 cases (26 per cent.), a distinct and permanent improvement in 98 cases (27 per cent.) and a cure in 100 cases (28 per cent). The disproportion in the number of nervous and non-nervous cases makes a fair comparison of the results in the two classes impossible. Among the nervous diseases, those classed as neuropathic show a very favorable result, 33 per cent. being cured, and 26 per cent. permanently benefited. Hysterical and neuralgic affections show nearly as high a percentage, though the absolute numbers are here much smaller. Diseases classed as organic naturally show the very minimum of success in treatment. We have thus no announcement of hypnotism as a panacea curing all diseases, but a fair proportion of success and failure distributed among various disorders in a way that accords with our knowledge of the nature of such diseases. It is only by such impartial and scientifically collected results that the movement can make progress.—*Science*, Feb. 28, 1890.

Milk Statistics.

The *American Analyst*, May 29, 1890, says, on the authority of the *R. I. Monthly Bulletin*, that there are $2,000,500,000 invested in the dairy business in this country. That amount is almost double the money invested in banking and commercial industries. It is estimated that it requires 15,000,000 cows to supply the demand for milk and its products in the United States. To feed these cows 60,000,000 acres of land are under cultivation. The agricultural and dairy machinery and implements are worth $200,000,000. The men employed in the business number 750,000, and the horses over 1,000,000. There are over 12,000,000 of horses, all told. The cows and horses consume annually 30,000,000 tons of hay and nearly 90,000,000 bushels of corn meal, about the same amount of oatmeal, 275,000,000 bushels of oats, 2,000,000 bushels of bran, and 30,000,000 bushels of corn, to say nothing of the brewery grains, sprouts and other questionable feed of various kinds that are used to a great extent. It costs $450,000,000 to feed these cows and horses. The average price paid to the laborer necessary in the dairy business is probably $20 per month, amounting to $180,000,000 a year. The average cow yields about 450 gallons of milk a year, which gives a total product of 6,750,000,000. Twelve cents a gallon is a fair price to estimate the value of the milk at a total return to the dairy farmers of $810,000,000, if they sold all their milk as milk. But 50 per cent. of the milk is made into cheese and butter. It takes 27 pounds of milk to make one pound of butter, and about 10 pounds to make one pound of cheese. There is the same amount of nutrition albumenoids in 8½ pounds of milk that there is in one pound of beef. A fat steer furnishes 50 per cent. of boneless beef, but it would require 24,000,000 steers, weighing 1,500 pounds each, to produce the same amount of nutrition as the annual milk product does.

Effect of Ventilation on Micro-Organisms.

Dr. Richard Stern (*Zeitschrift für Hygiene*) has made experiments on this subject in a room in which he could have perfectly quiet air, or a more or less complete ventilation. The openings in the walls of the room were so arranged that he could admit the air from without, either at the upper part near the ceiling and convey it off near the floor on the opposite side of the room (winter ventilation), or the air could be admitted near the floor and conducted out on the opposite side of the room near the ceiling (summer ventilation). The rapidity of

the ventilation was also under complete control. The air of the room was intentionally loaded with micro-organisms. Pure cultures were mixed with the dust collected from school-rooms and factories. This was then dried and pulverized and blown about the room. The air was then examined for the number of micro-organisms, by Petri's method at various times. The conclusions arrived at are: (1) That the micro-organisms rapidly sink to the floor in quiet air. The finer the dust upon which the micro-organisms rest the slower the gravitation. (2) The usual ventilation, effecting a renewal of air from one to three times an hour, has no effect upon the removal of micro-organisms with summer ventilation, and only to a very limited extent with winter ventilation. (3) Ventilation, effecting a more rapid renewal of air (six or seven times to the hour), does effect the removal of micro-organisms, but is scarcely to be attained without a sensible draught. (4) A rapid and complete removal of the micro-organisms from the air is only attainable with a strong draught. (5) Micro-organisms are not blown off from the floor, walls, furniture, clothing, etc., even with the stronger draughts. (6) The evolution of steam in a room is not capable of rapidly and completely precipitating the micro-organisms, although it hastens this process to a not very appreciable extent.—*Druggists' Circular*, May, 1890.

Antisepsis Among the Ancient Greeks.

Professor Andreas Anagnostakis, of Athens, gives in the *Deutsche Medicinische Wochenschrift*, some interesting facts in reference to the employment of antiseptic measures among the ancient Greeks. Hippocrates and Galen were aware that an unclean condition of wounds retarded healing. They were also well acquainted with the fact that by thorough hemostasis, suture and the employment of antiseptic measures, infection of wounds might be prevented. Hippocrates warned his disciples against the use of moist dressings, on account of the danger of suppuration, and forbade the employment of drugs before the wound was dry. Above all, says Galen, avoid dirt, as it prevents healing. The ancient Greeks boiled their water before applying it to wounds. Sponges were avoided, and charpie recommended in their stead, which was to be destroyed after use. One of the principal antiseptic substances then in use was wine, which was usually heated before using, and with which, according to Hippocrates, all wounds were to be washed. Dressings dipped in wine were also applied to the wound. Salt was in very general use, either in solution or in the form of sea-water. The solutions were rendered aseptic by boiling. Sulphate of copper was relied upon as an antiseptic for foul wounds, and was also put into use as a hæmostatic. Tar was highly praised for its antiseptic virtues and was either applied in the form of a dressing or directly poured upon the wound. Besides these, many aromatics and bitters were in daily usage, among which were thyme, rosin, asphaltum, etc., used as dressings, or in the form of plasters. Galen was acquainted with catgut and advised the use of non-putrefying substances for sutures. Prof. Anagnostakis declares that all this was not empiricism, but an antiseptic method founded upon some knowledge of the principles governing the healing of wounds.—*Druggists' Circular*, June, 1890.

Treatment of the Eczema of Dentition.

In the *Journal de Mèdecine*, July 28, 1889, Besnier says that he thinks the eczema of dentition is a reflex eczema. There are three indications for its treatment. First, to allay the irritation of the gums; second, to overcome the insomnia; third, to cure the local condition. For the first indication it is advised to rub the gums frequently with the finger, moistened with the following solution:

℞ Cocaini hydrochlor. . . . . gr. i
Potass. brom. . . . . gr. x
Aquæ dest.
Glycerini . . . . . āā ʒ iiiss

For the second indication the following mixture may be given in doses of a teaspoonful or a dessertspoonful:

℞ Sodii brom. . . . . gr. ivss–viiss
Syr. auran. flor. . . . . fʒ ii

For the local condition, applications of the following ointment should be made:

℞ Zinci oxidi . . . . . ʒ ii
Vaselini . . . . . ʒ vi

The affected parts should also be covered with a thin rubber or muslin mask.

Helianthus in Intermittent Fever.

The *N. Y. Medical Record*, July 5, 1890, says on the authority of the *Rivista Clinica e Terapeutica*, May, 1890, that Dr. Maminoff has obtained excellent results in certain cases of malaria in children from the use of helianthus annuus, a remedy recently proposed by Rosatchkoff, of St. Petersburg. The tincture of helianthus, one part in five, prepared from the flowers and bark of the plant, is a yellowish-green liquid, almost tasteless, and without odor. It may be administered to children in doses of from ten to twenty-five drops three or four times a day. The first case in which Maminoff made use of this tincture was in his own child, three years of age, who had contracted a quotidian fever that resisted the action of quinine and of Fowler's solution in pretty large doses. He then had recourse to the tincture of helianthus, and on the second day the access of fever was very sensibly reduced, while from the fourth day on it had disappeared entirely The drug was continued for a week, or until the tumefaction and tenderness of the spleen had disappeared. A fresh paroxysm of fever appeared at the expiration of a month, but yielded at once to the helianthus and never again returned. This success led the author to make a number of experiments with the remedy in his clinic of children's diseases, prescribing it in place of quinine for malarial fevers. In every instance the results of this mode of treatment were excellent, old cases especially yielding promptly in three or four days.

A Case of Dextro-cardia.

Niesel, assistant at the clinic of Mosler, at Greifswald, reports in the *Deutsche medicin. Wochenschr.*, June 5, 1890, the case of a man, 20 years old, in whom existed the physical signs of displacement of the heart to the right side of the chest, without inverse transposition of the vessels. The patient has always been healthy, had never complained of palpitation and only recently had observed shortness of breath on great exertion. He came to the hospital on account of pain in the left side, following a fall. There was right-sided pleurisy, with effusion. Percussion over the normal area of cardiac dulness was resonant, over the corresponding area upon the right side, dull. Pulsation was slight to palpation, and the cardiac impulse was faintly visible in the fourth intercostal space, close to the right margin of the sternum. The heart sounds were loudest at the lower extremity of the sternum and at the right border of the heart. The first sound was stronger at the former situation than at the latter. In the left second intercostal space, close to the sternum and over the left half of the sternum, the second sound was stronger than in the corresponding situations upon the right.

Lysol.

Gerlach, before the Society of Physicians of Vienna, discussed lysol, a new antiseptic, derived from coal tar, yet free from carbolic acid. Its activity depends upon the cresoles contained. Its advantages over other antiseptics, especially carbolic acid and creolin, are said to be: 1, that its bactericidal activity exceeds that of creolin and of carbolic acid, as well in its influence upon vegetative as upon permanent forms of organisms; 2, it is less toxic than creolin and carbolic acid; 3, it is not a secret preparation and its composition is constant; 4, it is cheap; it is soluble in water; in the treatment of wounds, etc., solutions of ½ to 1 per cent. are used.—*Deutsche medicin. Wochenschrift*, June 5, 1890.

Nona.

James F. Hartigan, U. S. Consul at Trieste, under date of May 17, 1890, makes the following statement relative to the reported disease "la nona":

"Some credence having been given to the rumors about the so-called disease 'la nona,' I have taken occasion to inquire into the subject. The name is derived from the Italian, and is supposed to mean grandmother; but what connection it has with this much-respected person is not explained, except that she is given to dozing.

"So widely circulated were these reports, and they attracted so much attention on account of the alleged peculiar symptoms, that the Austrian Government issued a circular inviting inquiries as to its existence. The result has been entirely negative; not one authenticated case was discovered. Neither can a case be substantiated in Italy, where it is said to have originated, by competent medical authority. Dr. Constantine, the sanitary physician of this port, during a re-

cent visit to Rome, could learn nothing to verify it.

"These extravagant rumors doubtless had their origin in a few stray cases of uræmic coma that were not understood, or some like condition."

This statement, from the *Abstract of Sanitary Reports*, U. S. M. H. S., may be taken into consideration with those already published in the REPORTER and other medical journals in regard to the curious phenomenon.

Displacement of the Testicle.

At the clinical meeting of the Hunterian Society of London, held April 9, and reported in the *Lancet*, April 26, 1890, Dr. W. Fowler showed an example of displaced testicle in a patient seventeen years old. Over the left saphena opening was a superficial fluctuating tumor about the size of a split Tangerine orange, at the lower part of which the testis and cord could be felt. Above the tumor was an ill-defined fulness reaching up to Poupart's ligament. Here alone there was very slight impulse on coughing, but not that characteristic of bowel. When lying down a certain amount of fluid could be displaced from the tumor into the fulness above it, as though the processus vaginalis were not obliterated. The displaced testicle was small, tender and possessed testicular sensation. The lump had been noticed about ten years, lessening in size on lying down. The only inconvenience had been some aching in the part, especially after exertion. The patient wore a truss for ten years in the belief it was a hernia. He is in apparently good health except for chronic constipation. In former years he used athletics. Excision was recommended on account of the dangers: First, that hernia might follow; second, that the gland might take on sarcomatous growth.

Antipyrin and Antifebrin in Polyuria.

In the *Meditzinskoïe Obozrenië*, No. 5, 1890, p. 487, Dr. I. I. Maslovsky, of Bürnak, draws attention to antipyrin and antefebrin as remedies for diabetes insipidus and adduces an interesting illustrative case referring to a sickly and highly nervous peasant-lad, sixteen years old, with polyuria of a nervous origin and of six years' standing, in which the use of these drugs was followed by a striking and apparently permanent decrease of both thirst and amount of urine. Antipyrin was administered at first in eight-grain doses four times daily; later twelve grains five times a day; then finally twenty-four and twenty-six grains four times daily, the whole course lasting thirteen days. The daily quantity of urine fell from 11.700 cubic centimeters to 6.100; that of water ingested from 10.600 c. c. to 6.200. After an interval of three days, antifebrin was resorted to in from six to eight-grain doses four times daily, for eight days. The daily quantity of urine decreased from 6.300 c. c. to 4.100; that of water ingested from 7.450 to 4.590. No unpleasant accessory effects were ever noticed from either of the remedies.

Suicide by Means of a Pin.

At a recent meeting of the Société de Chirurgie, of Paris, reported in part in the *Medical Press and Circular*, April 30, 1890, M. Magnan related the case of a young woman who had fallen into melancholia, and expressed frequently the determination of destroying herself. In spite of close observation she succeeded in plunging an ordinary-sized pin under the left breast. The instrument passed through the sixth intercostal space, the pericardium, and lacerated the myocardium. Death supervened from syncope, the heart stopping from a quantity of blood filling the lower part of the pericardium, although no important vessel was wounded.

Raising the Grade.

In a recent issue of the *Popular Science News*, it is stated that Dr. Hartwig, of Buffalo, N. Y., proposes a plan for raising the standard of the medical profession in this country, which he considers more practicable than any yet suggested. He would have a separate class of practitioners established by the State to be called "State physicians" unless some better name can be found. This grade is to be open to all upon passing an examination before a Board appointed by the Governor. Entrance to it, he thinks, should be a prerequisite to holding public medical office, or to appearing in court as an expert witness. Other practitioners would not be interfered with and the people would enjoy the right to employ them, if they chose; but he thinks the

"State physicians" would soon stand so much higher with the people as to make it almost a necessity for a medical man, who would succeed in practice, to enter the more reputable class.

Care of the Insane in New York.

The new law in New York for the care of the insane was signed by the Governor on April 15. By the terms of the act all the pauper and indigent insane in all the counties of the State, except New York, Kings and Monroe, will be cared for and maintained by the State without any charge or expense whatever to the counties. The number of insane affected by this bill is a little less than 2,300, less than one-half of the whole number now cared for by the State. No asylums are to be built, as the State had before the passage of the bill adopted plans for, and entered upon the construction of, buildings in which 1,600 of the number to be cared for can be accommodated, leaving only 700 to be provided for by the erection of small detached buildings on the grounds of the present State asylums, at a cost of $550 per patient, or $385,000 for the whole number. Hereafter no pauper or indigent insane person can be returned from a State asylum to a county asylum.—*Medical Record*, April 19, 1890.

Red Nose.

In twenty per cent. of the cases of red nose the redness is caused by acne rosacea. Where rosacea is the cause, Unna gives one-half grain of ichthyol internally, and, at the same time, applies it externally in aqueous solution at night, or he prescribes the following sulphur-zinc paste as given in the *Chemist and Druggist*, May 31, 1890, to be applied nightly:

℞	Ung. zinci	20 parts
	Amyli oryzæ	5 "
	Sulphuris	2 "

Later on, Unna has the enlarged venous trunks punctured with Hebra's instrument two or three times per week; the little wounds are immediately covered with wet cotton. For very mild cases and for supplementary treatment repeated washing with ichthyol soap is recommended, warm water only to be used, as in all cases of rosacea.

Action of Tobacco on the Teeth.

Professor Miller, of Berlin, has found that, by boiling fifteen grams of Virginia tobacco in fifteen cubic centimeters of water, adding fifty cubic centimeters more of water to the filtered decoction, and mixing the whole with an equal quantity of saliva, the bacteria in the latter are not destroyed, but merely arrested in their development. On the contrary, when the smoke from a cigarette was made to pass through a culture-medium impregnated with salivary bacteria, the medium was completely sterilized. In view of these facts, it may be asked why smokers are not exempt from dental caries. The reason, Professor Miller says, is simply because tobacco smoke does not penetrate to the seat of the disease.—*Druggists' Circular*, June, 1890.

Snuff for Colds.

The following is a convenient formula to be used in place of solution of cocaine:

℞	Sodii bicarb	grs. ij.
	Magnesiæ carb. (Levis)	" iij.
	Menthol	" j.
	Cocain. hydrochlor.	" iv.
	Sacch. lactis	ʒiss.

M. Sig.: Use as snuff.

It is said that the most marked relief follows the use of this powder, and a few applications will do much to abort the catarrhal attack. Its effects are immediate, highly agreeable to the patient, and continue for a number of hours.—*Chemist and Druggist*, May 31, 1890.

Some Antihydrophobic Herbs.

In the Ukraïne (South Russian) popular medicine the following plants enjoy the reputation of being good remedies for hydrophobia: *Euphorbia Peplis*, *Genista tinctoria*, *Alisma plantago*, *Origanum vulgare* and *Tanacetum vulgare* (tansy). In order to study the alleged remedial properties of these herbs Dr. Foma K. Alexëëff, of Kharkov, has carried out a long series of experiments on dogs, rabbits and guinea-pigs inoculated with rabies. The results proved to be totally negative, none of the herbs manifesting any slightest prophylactic or curative influence in regard to the disease.—*Vratch*, No. 13, 1890. [Anybody familiar with the history of the subject would not have wasted time over these experiments.—Ed. Reporter.]

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

NOT BURIED ALIVE.

The fear of being buried alive haunts the minds of so many of our fellow-men that it may hardly be regarded as strange, in some respects, that it was recently reported that a number of physicians in a city near Philadelphia had banded themselves together to devise means to prevent such a catastrophe in their own case. And, when physicians could take such measures in view of a supposed danger, it is not remarkable that the community should have a special and exaggerated horror of being buried alive. But, this horror is as without reason as is the timidity of the physicians referred to. There seems to be no good ground whatever for supposing that it is possible in this enlightened age for any person to be committed to the grave while yet living. Stories reporting such occurrences are by no means rare; but any one who examines them closely will certainly remark that they are wholly lacking in originality, and that there is in fact so strong a resemblance between them as to excite the suspicion that one has been copied from another. Investigation will show, too, that this suspicion is a well-founded one; at least such has been the experience of the Editor of the MEDICAL AND SURGICAL REPORTER, who has for some years followed up every story of burial alive which came to his notice, and always with the result of learning that they were false or of failing to learn anything about their origin.

The most recent experience of this sort occurred in connection with a story published in the daily papers June 10, 1890, of a man who was said to have died and to have been buried alive in Chicago. After tracing the story from one point of the newspaper world to another, it was found to have originated in a Chicago paper, which said the man had been sent as dead from a hospital in that city on February 23, and that afterwards he had been buried, that the buriers had heard sounds like knocking on the coffin lid, but went ahead with the burial, and that after an interval the grave was opened and the coffin lid removed to disclose that the man had turned over, torn his hair out, buried his fingers in his flesh, and so on. At the end of our investigation we received a letter from the hospital stating that it never had a patient of the name given, that no person died in the hospital on the date given, and treating the story as a hoax. The Associated Press agent in Chicago who started the story round the country, on being asked if he thought there was any truth in it, replied to our representative: "I am not supposed to believe everything these fellows (meaning the reporters) write."

This is the latest story, and it illustrates the unreliability of all of them that we know anything about, and the utter lack of principle which usually lies at the bottom of them. As physicians we may, by publish-

ing the falseness of such stories, do something to allay the awful fears which they excite in the minds of many of our fellow-beings; and we may hope that those who manage the daily newspapers will some day properly punish reporters who furnish them with such cruel inventions.

DOCTORS AS DESTROYERS.

From the earliest period in the history of medicine physicians have been the subjects of witticisms which intimate that they have a double function: one to heal the sick and another to facilitate their exit from a world of woe. Juvenal said of Themison, a physician who practiced in the first century: "Quot Themison aegros autumno occiderit uno." Physicians do not, as a rule, mind this sort of a pleasantry; but, at bottom, they do not like it. This being the case, physicians should do nothing to encourage such jokes, and least of all should they go to killing their fellow-men in broad daylight, and with the full knowledge of the community. If they must kill them, it should be done in a manner least likely to do harm to the already delicate reputation of the profession.

We have no doubt the readers of the REPORTER will approve this suggestion, and that they will share with it the regret occasioned by a recent occurrence, in which a physician in Birmingham, Ala., not only shot a fellow-man but did it to a fellow-practitioner. More recently still—in fact in the latter part of June, this year—a Louisville physician went out to what is called ironically the "field of honor," with the apparent intention of putting a bullet through a farmer of that region. The fatal issue of the encounter was prevented by the good sense of the farmer, who at the last moment concluded that the game was not worth the candle, and that he would be a fool to run the risk of making his wife or that of his antagonist a widow.

We applaud the judgment of the farmer, for the Doctor might have killed him, and then the greater fool would have survived, and certainly the greater coward; for, as we understand, in Kentucky it takes a deal more courage to back out from a duel than to go into one.

As for the Doctor, we trust that he will never again put the profession in such a bad position before the eyes of the world. If he wishes to get even with any one who has expressed an unfavorable opinion of him he had better adopt those quiet and unconspicuous methods which were familiar to medical men and alchemists a few centuries ago. These are rather more effective than dueling, and when they were in vogue secured a vast deal of respect for those who availed themselves of them.

This little hint, we trust, will be taken with due discretion by the readers of the REPORTER.

SIGNIFICANCE OF DIFFERENCE BETWEEN TWO RADIAL PULSES.

One by one erroneous notions are corrected by more careful observation. From the time of Marey, whose name is inseparably connected with the sphygmograph, it has been the common belief that a difference between the two radial pulses in the same patient is highly significant of aneurism of the aorta, or of one of the great vessels coming off from it. It is true that in some cases of aneurism of these vessels the pulse in the affected side is felt to be retarded, and to differ in volume and in tension from that of the healthy side. The sphygmograph records much more accurately the condition; it shows a low, sloping up-stroke, a rounding of the summit, and a more gradual descent than in the pulse of the unaffected side, the tracing being wave-like. But it appears that this condition of the pulse, and the sphygmograph, which has been regarded as characteristic of aneurism, is not due to aneurism *per se*, that it may be present in the absence of aneur-

ism, and may not be present when aneurism exists. According to Von Ziemssen (*Deutsches Archiv. für klinische Medicin*, May, 1890), it is the result of a narrowing of the artery—innominate or subclavian as the case may be—and while it may occur in aneurism, as the result of pressure, for example, it is most frequently the result of arteritis deformans, an atheromatous condition of arteries which frequently results in narrowing of the vessel. Von Ziemssen gives brief notes of eight cases; in four of them the pulse-tracing which has been believed to be characteristic of aneurism was present, but there was no aneurism, the lesion, as proved by autopsy, consisting of a narrowing of the mouth of the subclavian artery as the result of arterio-sclerosis. In the remaining four cases, the pulse-tracing of the two radials showed no essential differences, but there were manifest physical signs of aneurism of the arch, such as pulsating tumor, paralysis of the recurrent laryngeal nerve, etc.; in one of these cases the diagnosis was established by autopsy.

The fact than stenosis of the great vessels may produce the difference in the pulses in question has not altogether escaped observation by other writers. Quincke hints at it, and Broadbent reports a case in which the lesion was actually discovered *post-mortem*; but he speaks of it as a "remarkable case." Arterio-sclerosis of the aorta is much more common than aneurism of the arch; it should, therefore, be very easy to confirm the statements of Von Ziemssen. The subject is of importance in prognosis as well as in diagnosis, and we hope it will receive attention on this side of the water.

POISON OF TYPHOID FEVER AND CHOLERA INFANTUM.

It was announced in the daily papers of July 7 that Dr. Vaughan, of Ann Arbor, had recently discovered the poison which causes typhoid fever and cholera infantum. There can be no doubt that Dr. Vaughan is not responsible for these statements in the form in which they appear. Our readers are aware that this is not the first time that the medical world has heard of the isolation of a ptomaine which Dr. Vaughan thinks may be the cause of typhoid fever, and as to the cholera infantum, it is hardly likely that Dr. Vaughan would make any such exaggerated claims for the poison which he has isolated, and with which he has experimented, as the newspapers do.

Still it cannot fail to interest the public at this season to hear that so able an experimenter has found something which seems to have a practical bearing upon the prevention or treatment of a disease which every summer carries off so many victims, and the readers of the REPORTER will await with equal interest the details and authorized account of what Dr. Vaughan has been doing, which gives rise to these sensational announcements.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

TEXT-BOOK OF MEDICAL CHEMISTRY. For Medical aad Pharmaceutical Students and Practitioners. BY E. H. BARTLEY, B. S., M. D., etc. Second Edition. 8vo, pp. 423. Philadelphia: P. Blakiston, Son & Co., 1890.

This work has reached a second edition, which is a mark of a certain acceptation by the profession. But, as a text-book, it gives too much prominence to theoretical considerations to the exclusion of practical details. This is especially the case in the medical, physiological and pathological portions of the subject. The pharmaceutical portion is not open to the same objection. Usually in medical chemistries considerable attention and care are paid the various fluids of the body and the excreta, but Dr. Bartley does not, except in the briefest possible way, consider the urine, blood, bile, digestive juices, etc. In fact, the analyses of blood, bile, chyle, saliva, gastric and pancreatic juices, milk, tears and sweat are crowded into several tables of compilations in the appendix, and are elsewhere considered only as their important principles fall into the author's classification of organic substances. If the name of the work were not "Medical Chemistry," there would not be much in it to criticise, but as a medical work it is open to the serious objection of not being medical enough. Generally the author is clear except where he has had to sacrifice something to want of space The book contains a number of typographical errors, although the types are good and clear, and the binding is of fair quality.

Literary Notes.

—We have received the prospectus of the *Biography of Ephraim M. Dowell, M. D.*, "the Father of Ovariotomy," which is shortly to be published by his granddaughter, Mrs. Mary Young Ridenbaugh. Besides an account of the life and work of Dr. McDowell, the book will contain several valuable articles relating to ovariotomy. The subject of the work will make the book one of interest to every physician, but especially so to every gynecologist. The authoress, Mrs. Ridenbaugh's work is endorsed by the most eminent medical men in this country and abroad.

It will be sold by subscription only. Those who desire the work should send their orders to the authoress and publisher, Post-Office Box 372, Philadelphia, Pa. The price ranges from $5 to $6, according to binding.

—A Newcastle-on-Tyne publishing firm, Messrs Mawson, Swan & Morgan, announces the fac-simile reproduction of an old manuscript volume entitled "Ye Apothecarie: his Booke of Recepts agaynste alle maner of sicknesses; allso howe to bake meates, to make Uskabaughe, to die clothe or woole, and divers usefull thinges besydes." The manuscript dates back about three centuries.

Notes and Comments.

Pathology and Treatment of Goitre.

In the *Birmingham Medical Review*, June, 1890, there is a paper by Dr. Berry, on goitre, of which the following summary appears in the *London Medical Recorder*, June 20:

Dr. Berry divides innocent forms of goitre into two classes—those in which the whole gland is more or less uniformly enlarged, and those in which the enlargement is due to the development of one or more definite cysts, or solid tumors, generally in one lobe only of the gland. The former is usually met with in young people, and may be regarded as the first stage in the development of nearly all goitres. The goitre consists in some cases of a mere hypertrophy of all parts of the gland, but in most the enlargement is due chiefly to increase in the amount of colloid material in the thyroid vesicles. Each vesicle, instead of containing a small amount of colloid material, as in the normal gland, is much dilated and contains a greatly increased amount of secretion. In fact it would be correct in most cases to look upon the enlargement as being due to a hypersecretion of colloid material into all the vesicles of the gland. There is also some increase in the connective tissue and glandular elements. That this hypersecretion is brought about, in the great majority of cases, by some material introduced into the body by means of drinking water, admits of but very little doubt. This form of goitre rarely produces any very serious symptoms, although sometimes these arise from, by pressure upon the trachea, recurrent laryngeal nerves, and other structures in the neck. Death may result from pressure upon the trachea. As a rule goitres involving the whole of the gland compress the trachea in such a manner as to cause lateral rather than antero-posterior flattening.

The operative measures for the cure of parenchymatous goitre, excluding injections, the use of setons and ligature of the thyroid arteries, which the author regards as worthy of discussion, are division of the isthmus with or without removal of a portion of it; resection as recently introduced by Mikulicz, of Cracow, which consists in removing all the goitre except a small piece on each side of the trachea; and extirpation of one half or more of the gland.

Division of the thyroid isthmus was first performed in this country by Mr. Holthouse, at the Westminster Hospital, in 1874; but for some years it attracted little or no attention until revived by Mr. Sydney Jones, of St. Thomas's Hospital, in 1883, since which it has been extensively practiced. Mr. Jones pointed out that the operation not only gave relief to the dyspnœa, but caused a remarkable diminution in the size of the goitre by inducing atrophy of the lateral lobes. Mr. Berry does not endorse the view that the relief to the dyspnœa is due to the mere mechanical separation of the two halves of the gland, but to the shrinking of the lobes which follows the operation, consequent on the oozing away of the viscid colloid secretion contained in the vesicles of the gland. He has noticed that division of the thyroid isthmus in truly fibrous goitre gives little or no relief to dyspnœa, and is not followed by diminution in the size of the growth as in the more common colloid variety. The relief afforded by the division of the isthmus in the colloid variety may be permanent, but frequently the goitre reappears when the wound has healed and the secretion is again pent up in the gland. In many cases where very urgent dyspnœa is present a mere division of the isthmus will not afford relief sufficiently quickly. It is then necessary to do some further operation, either tracheotomy or the removal of a considerable portion of the goitre, the latter being the more advisable.

Resection, as performed by the Polish surgeon Mikulicz, is particularly suited to parenchymatous goitre. He performs the operation in the following manner: He first isolates one lobe of the goitre in the ordinary way, as if he were about to remove it, but takes care to leave untouched the connections on the inner side where it is in contact with the larynx, trachea, and recurrent laryngeal nerve, and where the inferior thyroid artery enters. In this region a good-sized piece of gland—enough to carry on the functions of the organ—is left intact, all the rest of the lobe being cut away. The same proceeding is then executed, if necessary, on the other side of the neck. In this operation the dangerous region above mentioned is not interfered with, consequently there is no fear of injuring the recurrent nerves. The goitre is almost completely removed, but the small portions left behind obviate any danger of the supervention of cachexia strumipriva (so-called artificial myxœdema.) Twenty-three cases of this operation are reported in Langenbeck's *Archives* for 1888. In twenty the wound healed by first intention; in two, suppuration occurred which delayed the healing process; and one patient died from recurrent hemorrhage, the ligature having slipped from the superior thyroid artery.

The remaining operation, which may be performed in bilateral parenchymatous goitre, viz., removal of one lobe of the gland, is more easily performed than any operation by which large portions of both lobes are removed. It has the disadvantage, however, that the opposite lobe almost always undergoes some degree of subsequent hypertrophy, causing displacement of the larynx and trachea.

The second class, which may be termed unilateral goitres, never consist of simply hypertrophied gland tissue. The enlargement is due in all cases to the development in the gland of one or more distinct tumors, either cystic or adenomatous growths of some kind. They less often cause death by suffocation than do bilateral parenchymatous goitres. Still they are frequently a source of considerable inconvenience, and even of some danger, to the patient. Hence at times they call for removal, and this may be performed with very little danger. There are two methods of operating, enucleation and extirpation. The former consists of removal of the tumor alone from the interior of the gland, everything else being left behind, and is applicable only to those cases in which the goitre forms a well-defined tumor embedded in the gland. The latter consists in removing the whole of the affected lobe of the gland. The author gave details of cases in which he had operated for unilateral goitre by enucleation, and also one case of extirpation, the tumor weighing eighteen ounces, the results in each being satisfactory. The discussion of other methods of treating cystic goitre by tapping, injecting, etc., was outside the scope of the paper.

Nature of Leprosy.

The various theories which have been advanced from time to time to account for the production of leprosy, are discussed by Sir William Moore, K. C. I. E., whose experience among sufferers from the disease has been very considerable. Concerning the malarial theory, Sir William Moore is convinced that it does not afford any sufficient explanation of the etiology of the affection, and especially since leprosy is a prevailing malady in countries which are free from the so-called malariæ. In the same manner it is assumed that insanitary surroundings and absence of salt in food are not of themselves efficient factors in the production of leprosy, inasmuch as it is shown to occur freely among the denizens of carefully drained and cleansed quarters, though it is admittedly much more common among the poor and destitute; and also because it is constantly encountered among the inhabitants of semi-desert districts in Western India, the principal product of which is salt. The much-debated influence of a fish dietary in causing leprosy is discussed at some length, and it is shown that from various circumstances fish in any form is almost an unknown food in districts whose populations exhibit as large a proportionate number of lepers as is found among those living on the coast. To this effect also is the evidence afforded at a meeting of the Medical and Physical Society of Bombay, held last winter, and at which the subject of fish eating in relation to leprosy was brought under discussion. The speakers were generally agreed that no sort of connection existed between the two, and this view seems now to be pretty universally accepted by those who possess opportunities of observing if such a relation has any existence in fact. The theory to which Sir William Moore inclines, and the enuncia-

tion of which is the real object of his paper, is that leprosy is a phase of inherited syphilis, and he offers replies to the principal objections raised against the acceptance of that view which regards the two diseases as of similar nature. The many remarkable characteristics shared in common by leprosy, tubercle and syphilis, have for long past excited the attention of scientific surgeons, and the well-known labors of Mr. Jonathan Hutchinson on the connection between the first of these diseases need only be referred to in proof. Respecting the possibility of leprous subjects contracting syphilis, which has been urged as a reason against the identity of the two affections, Sir William Moore says that he has never seen such a case; but he adds that even a Hunterian chancre may very exceptionally be twice developed on the same person; syphilis arising in a leper would be comparable to it. Though it can hardly be said that the author advances anything that is absolutely new in his paper, yet he lends fresh emphasis to several points which will well bear careful reconsideration, and especially just now that special attention is being devoted to the discovery of the actual *materies morbi* of various ill-comprehended diseases. Leprosy as a wide-spread contagious disease, the victims of which are debarred from ever anticipating a cure of their condition, must command and will receive unceasing study so long as it proves the *opprobrium medicorum* that it is at present.—*London Med. Recorder*, June 20, 1890.

The Grippe and Cholera.

Fears having been expressed as to a possible connection between influenza and cholera epidemics, Dr. Smolenski publishes, in the Russian *Official Messenger*, an elaborate report upon the subject. He points out that the suspicion is not new, and that in 1837 it was discussed by Gluge ("Die Influenza"), and refuted. In fact, influenza or *grippe* epidemics have been known in Europe since 1173, that is, for more than seven hundred years; while the first cholera epidemic appeared in Europe in 1823, but did not spread that time farther than Astrakhan. Six years later it broke out in Orenburg; next year, in Caucasia and Astrakhan again, whence it spread over Russia, and in 1831 reached western Europe. As a rule, influenza spreads very rapidly; and at St. Petersburg in 1782, says *Nature*, no fewer than forty thousand persons fell ill of it on the same day (Jan. 14). In 1833 its progress was also very rapid, and within a few days it appeared at places so far apart as Moscow, Odessa, Alexandria and Paris: while cholera epidemics are usually slow in their migrations from one place to another. Moreover, influenza is chiefly a winter epidemic, while cholera prefers the spring and the summer.

Dr. Smolenski has further tabulated all influenza and cholera epidemics which have broken out in the course of this century in Europe; and he comes to the following results: influenza broke out in 1816 in Iceland; 1827, in Russia and Siberia; 1830–33, in Europe generally; 1836–37, in Europe; 1838, in Iceland; 1841–48 and 1850–51, in Europe; 1853, in the Faroe Islands; 1854–55 and 1857–58, in Europe; 1856, in Iceland and the Faroe Islands; 1862, Holland and Spain; 1863–64, France and Switzerland; 1866, France and Great Britain; 1867, France, Germany and Belgium; 1868, Turkey, and 1874–75, western Europe. As to the cholera epidemics during the same period, they were, 1823, Astrakhan and Caucasia (from Persia); 1829, Orenburg (from Turkestan); 1830, Russia (from Persia); 1831–37, various parts of Europe. The next epidemic appeared in 1846 in Transcaucasia (coming from Persia); in 1847 it spread over Siberia and Russia, and in 1848 it was in Europe; in 1849–52 it was followed by feeble outbreaks all over Europe. The third cholera epidemic came from Persia again in 1852, and it resulted in a severe outbreak during the years 1853–55 in Europe, followed by feebler outbreaks till 1861. The fourth cholera epidemic came through the Mediterranean ports in 1865, and lasted in Europe till 1868, with feebler epidemics in 1869–74. The latest invasion of cholera was in 1884, when it came again through the Mediterranean ports. As to the cholera epidemic which now begins to die out in Persia and Mesopotamia, it certainly is a danger; the more so, as, out of the five epidemics of cholera which have visited Europe, three have come from Persia.—*Science*, February 14, 1890.

Nerve Nævi.

At the meeting of the Medical Society of Hamburg, January 28, 1890, Unna presented a case of so-called nerve nævi in a

child five years old. This affection is exceedingly rare. Unna says (*Deutsche medicin. Wochenschr.*, June 5, 1890) that only three cases have been described thus far, one under the name of ichthyosis linearis neuropathica. It is characterized by lines running from the upper gluteal region over the popliteal space, down the calf and along the inner side of the tendo Achillis, over the dorsum of the foot to the small toe. In the upper portion the lines are made up of flat papules, in part covered with scales. Lower down they are made up of skin in a condition of hyperkeratasis (hypertrophy of the epidermis). In the case presented, the affection began in the child's second year, and, barring slight fluctuations, has been constant. The skin of the parts affected has grown more dry. Unna rejects the idea of any association of the manifestations of the disorder with disease of the peripheral nerves, as the course of the lines does not correspond with that of any particular nerve. He would rather believe in a connection with the embryonal fissures.

The term "nerve nævus, or papilloma neuropathicum," is usually defined as meaning a nævus corresponding in location to the area of distribution of one or more cutaneous nerves. If the view of Unna, stated above, is correct, the name is not well chosen. We will look with interest for further facts in regard to this curious affection and hope that a more appropriate name for it will soon be suggested.

Accidental Rectovesical Lithotomy.

At the last meeting of the Medical Society of North Carolina, Dr. O'Hagan reported a very unusual operation which was performed by accident while doing another one.

He presented a calculus 3½ inches long, 3 inches wide and 1½ inches thick and weighing 7¾ ozs., and gave the following brief description of the case. The patient came to him, a lean, cadaverous fellow, last July, and asked him if he could do anything for paralysis. On being answered in the negative, he started to leave in great despair. Calling him back, Dr. O'Hagan examined the bladder, discovered the presence of a calculus which he supposed to be about an inch and a half long, and told the man he could get relief only by an operation. The man consented, and, after a few days of preparatory treatment, was operated on. The main reason in reporting the case was to warn others against too careless examinations in these cases as to the size of the stone. He made two examinations, but not as careful ones as he should have made, and was dumbfounded when he found he could not extract the stone through the perineal opening. A young medical friend came to his assistance, and in working at the stone with a pair of forceps, succeeded in pushing the forceps through the vesico-rectal septum.

The operation was done a week before last Christmas. Dr. O'Hagan did not think the patient could stand an extra supra-pubic lithotomy, so sent him home. To his very great surprise the patient did well, and the wound in the perineum healed kindly. Dr. O'Hagan then concluded to try to remove the stone through the rent in the bladder, and the man being anæsthetized, the sphincter was stretched and the stone was found presenting at the recto-vesical opening. It was removed with very little trouble, and the opening has decreased to a small fistula which will require an operation. The patient was thirty-eight years old, and had been suffering from infancy.

Vaginal Hysterectomy.

At the recent meeting of the American Medical Association, Dr. Franklin H. Martin, of Chicago, read a paper the title of which was "A Plea for Early Vaginal Hysterectomy for Cancer of the Uterus." Dr. Martin had collected 134 cases of vaginal hysterectomy, which had been performed since January 1, 1885, with the idea of getting at the immediate mortality of this operation. He received replies from twenty-five prominent operators, representing 134 operations. The mortality was less than 15 per cent. Of the twenty-five operators four had operated but once; three, twice; two, three times; three, four times; five, five times; one, eight times; one, twelve times; one, thirteen times; and one, twenty times.

The average mortality of the operators having the greatest number of cases was but ten per cent. The operator having the greatest number of cases has also the smallest mortality, the mortality being but five per cent. The operator having the next highest number of cases has also the next

lowest mortality, the mortality being 6.6 per cent.

Dr. Martin concludes that vaginal hysterectomy is the most justifiable surgical procedure we yet know of for cancer of the uterus; and it should be attempted for the cure of cancer of the uterus at the earliest possible moment after the disease is diagnosed.

The following facts were given in support of the foregoing propositions: Vaginal hysterectomy will remove the whole of the diseased tissue in cancer of any portion of the uterus in a greater proportion of cases than will any other surgical procedure now recommended. For cancer of the uterus, it will enable an operator to go further beyond the diseased tissue into healthy tissue than will any other surgical procedure. It is a more ideal surgical operation, and leaves the remaining tissues in a less favorable condition for the return of the disease than will any other surgical procedure. It will give in the future an immediate mortality among general operators of not more than ten per cent.; while in the hands of experts the mortality will not exceed five per cent.

Abdominal Surgery and Its Responsibilities.

At the recent meeting of the American Medical Association Dr. Thomas H. Manley, of New York, read a paper in which he says that surgeons should always proceed with caution when they contemplate an operation which involves an abdominal section; and that the unfortunate statistics of interference in penetrating or gun-shot wounds of the abdomen must not be unheeded, and operators should proceed slowly with exploratory incisions until the art of diagnosticating and localizing lesions within the peritoneal cavity has reached greater perfection than at present obtains.

He thinks that the varied, modern tests of intestinal laceration possess no substantial use, and that surgeons are yet without means of determining with accuracy whether or not the intestinal tube has been penetrated; or where, or to what extent.

Although anæsthesia and antiseptics have been of great value in the progress of surgery, it seems that our position in dealing with traumatic lesions within the abdomen is but little in advance of that of the 18th century.

Dr. Manley says the notion cannot be too strongly combatted that surgical treatment is the *only* one for ailments which arise from pathological changes in the uterine-adnexa; and that it cannot be too strongly emphasized that recovery from operation is not a cure in any sense. Further, we must regard many of our modern operations, involving the peritoneum, as not only reckless mutilations, but as vicious and unnecessary interferences followed by serious consequences to the patient.

Baccelli's Mixture.

According to the *Deutsche med. Wochenschrift*, June 5, 1890, Mistura Baccelli, useful in malaria, has the following formula:

℞ Quininæ sulphatis . . . . . gr. xlv
Ferri et potassi tartratis . . . gr. cv
Aquæ destillatæ . . . . . ℥x
Liquoris potassi arsenitis . . gtt. xxv

M. Sig. One to three tablespoonfuls daily.

If in severe cases other modes of absorption are not available Baccelli makes intravenous injection of quinine:

℞ Quininæ hydrochloratis . . . gr. xv
Sodii chloridi . . . . . gr. xij
Aquæ destillatæ . . . . . ℥iij ℥ij

M.

The Muzzle as a Protection Against Rabies.

The *British Medical Journal*, June 14, 1890, says: The statements of all the experts affording evidence of any real value all go to show the supreme importance of the muzzle as an agent for the suppression of rabies. The official returns from Berlin, when taken in their entirety, prove the case for the muzzle up to the hilt. The outbreaks referred to were traced to laxity of the police regulations, caused by years of practical immunity from rabies following upon prolonged periods of muzzling. Above all the report of the Select Committee is of the highest value, because, after having heard and examined all the witnesses for and against muzzling, the Committee reported first and foremost that when rabies is prevalent the muzzle should be enforced. After so conclusive a verdict being delivered by those specially appointed to consider the evidence, it is difficult to understand the frame of mind of those who seek to re-try

the case in the absence of the witnesses. If medical men do not necessarily understand the question of rabies in dogs it may at least be assumed that editors of canine journals do, and one need only refer to the columns of the *Stock Keeper* and the *Fanciers' Gazette* during the past three years to see that the experience of Berlin is regarded as being particularly instructive, and that muzzling regulations in various parts of the world have been in the highest degree beneficial.

Pyoktanin.

In regard to pyoktanin, a new germicide (the word means "pus-killer") the *American Druggist*, June, 1890, says that recently Professor Stilling, of Strasburg, discovered the fact that certain aniline colors are capable of destroying bacteria in the living organism. He has examined a large series of these bodies, and finally selected two which possess the desired properties in a high degree. There is one drawback connected with them, however, namely, that they are strong coloring agents. On the other hand, they are non-poisonous, odorless, and far exceed bichloride in their antiseptic effects. They not only prevent, but also arrest all pyrogenic processes, and promote the healing of wounds and sores.

The apparent drawback of the tinctorial power of the agent is overbalanced also by the fact that the surgeon can the more easily control and insure its application to the parts requiring treatment. Any stains produced by pyoktanin in places where it is not wanted may readily be removed by Javelle water or alcoholic solution of soap.

There are, for the present, two kinds of pyoktanin in the market, one being blue (Pyoktaninum cæruleum) and the other yellow (Pyoktaninum aureum.) The former is more specially intended for general surgical, and the latter for ophthalmological, purposes.

Pyoktanin is used (in both colors) in form of dusting powder (2 per cent. and 1 per cent.), salve, pencils, troches for making solutions, and fabrics impregnated with 1 per cent. of the agent.

Inoculation in the Future.

A writer in the *Hospital* says: "It is a dreadful point about these microbes that the only way to avoid having them in a virulent form is to have them in an artificial or attenuated form. The children of the future will not run through the present gamut of infantile disease, but they will probably be subjected to inoculation with various microbes every few months. First, they will be vaccinated for small-pox; when they have recovered from that they will be taken to a Pasteur institute to have a mild form of rabies. Next, they will be given a dose of the comma bacilli to prevent cholera, and so on through all the ever-growing series of disease microbes. Oh! luckless child of the future! you will never be ill and never be well; your health will be awfully monotonous; you will never know the weariness of the first night of measles, when it was so nice to lie in mother's lap and feel her cool hand on your forehead; you will never know the joys of convalescence, when oranges were numerous and every one was kind to you because you were not well; and your end will be to die of debility. How glad we are that we live in the present, with all its ups and downs of health to lend variety to life and death. — *Druggists' Circular*, May, 1890.

Death from Rattlesnake Bite.

The Philadelphia daily papers of July 14 report a presumable case of death from the bite of a rattlesnake. On July 13 a woman's body was found in the woods near the village of Foster, Pa. The body was almost unrecognizable, but proved to be that of a woman who had left her home in Foster about two o'clock in the afternoon to pick raspberries. She had been bitten by a rattlesnake and her body was swollen to unnatural proportions. The marks of the snake's fangs were visible on her arms.

Licorice to Mask the Taste of Quinine.

Of the following preparation it is said that one dram will mask the taste of about three grains of quinine, the results from its use showing it to be much superior to yerba santa and saccharine.

℞	Dry licorice extract	20 parts
	Hot water	10 to 20 parts
	Glycerine	20 parts

Dissolve and let cool, and to the solution add alcohol ten parts and distilled water sufficient to make eighty parts.

Injection for Fistula.

The following injection is, according to the *Medical Press and Circular*, April 30, 1890, much used for fistulous tracts in one of the principal hospitals of Paris:

℞ Camphor . . . . . ʒj
Salol . . . . . ʒss
Ether . . . . . fʒj
M.

Treatment of Scabies.

According to the *Medical Press and Circular*, April 30, 1890, the following formula is employed at the St. Louis Hospital, Paris, in the treatment of scabies:

℞ Oil of sweet almonds . . . . . fʒiii
Salol . . . . . ʒi

M. Sig.—Anoint the body with this mixture every night and then rub lightly with flowers of sulphur.

Sanitarium for Consumptives.

By the will of Miss Mary A. Edson one thousand dollars was recently left to the Adirondack Cottage Sanitarium provided it continues as a charitable institution.

This Sanitarium is for consumptives who are not considered incurable. It is beautifully situated on the side of a hill. It is a group of cottages which cluster round the main building. Each cottage accommodates from two to four patients, who each have a separate bedroom opening off the central sitting room, common to all. The charges made do not cover the expense of boarding the patients, and yet include everything the patient wants, not only in the way of board and lodging, but also in medicines and medical attendance. Dr. Trudeau, of Saranac Lake, is in charge of the institution.

NEWS.

—The birth of a child weighing about twenty-five pounds was reported in Philadelphia, June 10.

—Steps are being taken by the Russian Health Society to organize a hygienic exhibition in Russia.

—The birth of a doubled-headed human monstrosity is reported from Trenton, N. J., under date of July 6

—Dr. William H. Ford was unanimously re-elected President of the Board of Health of Philadelphia, on July 8.

—There are said to be 40,321 medical practitioners in Japan. The population is estimated at about forty millions.

—The honorary degree of LL. D. has been conferred by Lafayette College on Dr. Ezra M. Hunt, of Trenton, N. J., and by Yale University on Dr. Francis Delafield, of New York.

—Dr. David E. Gardiner, a well-known homœopathic physician, died in Philadelphia, July 10, 1890. Dr. Gardiner was graduated from the Homœopathic Medical College in 1857, and began his practice in Bordentown, N. J.

—Application has been made for a charter for a Hospital for Consumptives in Philadelphia, to be called the Rush Hospital. A very strong list of trustees is named and the medical staff is to consist of well-known physicians of Philadelphia.

—The Jersey City Health Board has taken the same doubtful course as was followed by the Baltimore Health Board ten years ago, in determining to use its own estimate of population in calculating the death-rate instead of the census enumeration.

—The *Norristown Herald*, July 2, contains a notice of the death of Miss Corson, daughter of Dr. J. R. Corson, U. S. A., due to an accident upon the railroad near Missoula, Idaho, a few days before. Miss Corson was the granddaughter of Dr. Hiram Corson, of Conshohocken.

—A preliminary injunction in a suit against the Medico-Chirurgical Hospital of Philadelphia, was granted July 5, to prevent the extension of the Hospital property with windows overlooking the plaintiff's premises. The Hospital has recently purchased several properties and it is their intention to build an extension.

—Medical students in London have been compelled to go through a course of four years' study, hospital attendance and lectures before being qualified to appear for the final examination. By an order of the General Medical Council of England, issued last month, the term of preparation has been extended to five years.

—On June 20 the foundation-stone of the main building of the Emperor and Empress Frederick's Children's Hospital at Berlin was laid in the presence of the Empress Frederick. Professor Virchow, in the name of the Committee, thanked that lady for her unremitting labors on behalf of the new institution, towards the cost of which she had collected about $100,000.

MEDICAL AND SURGICAL REPORTER

No. 1743. PHILADELPHIA, JULY 26, 1890. Vol. LXIII.—No. 4.

Clinical Lecture.

FLOATING KIDNEY.—NEPHRORRHAPHY.—ABSCESS OF THE STERNUM.—SCIRRHUS OF THE BREAST; REMOVAL.[1]

BY W. W. KEEN, M. D.,

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Floating Kidney.

Gentlemen: To-day I wish to show you a case which is rarely met with. It is a floating kidney which I intend to sew fast to the abdominal wall. The patient is a young woman, brought to us by Mr. Coleman, a member of the class, and his mother, Dr. Coleman, who has been the patient's physician, and who made the diagnosis. The patient is thirty-one years old. Five years ago, while reaching up for a heavy package of goods in the store in which she is a saleswoman, she suddenly felt something give way in her back, and she says that she also heard a distinct snap. This is very unusual. Patients frequently speak of the sensation of something giving away, but I have rarely known them assert that a snap was heard. The package slipped from her grasp, and she almost fell, and was unable to hold herself erect. Since then, to lift anything, no matter how light, has been a burden to her, because of the severe pain produced by the exertion. This pain is experienced in the right groin, in the back of the right thigh and even in the left. For the past three years she has practically been an invalid. At times there has been some disturbance of the urinary function. The urine becomes scanty and of a high color, but it has never been albuminous. Occasionally, also, there are very marked digestive disturbances, such as diarrhœa, anorexia and indigestion. At these times she thinks there has been an increase in the size of the tumor, which can be felt in the right inguinal region. She is also of a distinctly neurotic disposition.

When I examined her she told me that if she lay upon her left side the lump would fall with a thud towards that side. This statement was verified by my examination. A tumor was discovered of the size and shape of the kidney. The hilum could not be distinctly felt, but we could feel a large artery pulsating, probably the renal. Professors Brinton and Parvin both examined the patient, and both felt the artery and confirmed my diagnosis. The tumor is very movable, and can be pushed up into its proper position, and even up to the epigastrium and to either side. On percussing the loins I found a certain amount of resonance, with a sense of diminished resistance upon the right side, but not the entirely clear tympanitic sound sometimes heard over the normal position of the displaced kidney.

The kidney is subject to two different forms of mobility. One is called the "movable kidney," when the organ lies in a bed of fat, and is readily moved about behind the peritoneum, but never leaves its envelope. This usually gives rise to but slight discomfort. The second form is what is called the "floating kidney," where the organ is entirely dislocated and merely held up by a meso-nephron or duplicature of the peritoneum and its vessels. The kidney gradually pulls upon this and thus gets farther and farther away from its normal position. Greig Smith asserts that such a condition is always congenital, but I do not believe this to be the case; in the first place, because it is rare to find it in a child, and, secondly, there is usually a history of some violent exertion or traumatism preceding its appearance.

Should a patient come to us with such a condition, what are our means of diagnosis?

[1] Delivered at the Jefferson Medical College Hospital.

In nine cases out of ten the patient is a woman, and in nine cases out of ten the trouble is upon the right side. Then we have a tumor which can be freely moved about without producing much pain. We may be able to make out the shape of the kidney, and feel the hilum and the artery. The tumor is solid to the feel. Then we discover all we can by means of percussion and bi-manual palpation. Such a condition may be mistaken for a tumor of the ovary, of the mesentery, of the omentum, a uterine myoma with a long pedicle, or impacted feces.

Suppose, now, I find that this is not a movable kidney? I should, then, close the wound in the back immediately, and perform a laparotomy to remove whatever abnormal condition I should find. This patient has also another trouble. In Douglas' *cul de sac* there is an enlarged ovary, tender and dislocated, which is giving her some pain, and I may have to remove this by a later operation.

What are the indications for operation in these cases, and what is the prognosis? If there were no symptoms I should let the case alone. Still, a movable kidney, as it swings around upon its vessels and ureter, may become twisted, and cause a damming up of the urine with the production of a hydronephrosis. Thus, should we do nothing in such a case, the patient runs a considerable risk. If, in any case, the physical signs are those of a large cyst of the pelvis of the kidney, the organ should be removed at once by an abdominal incision. If there is no disease of the kidney, nephrorrhaphy, or sewing fast the kidney, should be done by a lumbar cut. The operation is not a very dangerous one. Dr. Thompson S. Westcott has collected for me a list of the cases which have been reported, a hundred and thirty-four in number. Of these, one case, which was operated upon by Ceccherelli, who fastened the kidney to the twelfth rib, died of pleurisy within forty-eight hours. Mr. Lawson Tait has performed this operation three times, and one patient died long after leaving his care, as he believes, from suppuration due to the operation. Hahn of Berlin reports one death in twenty of his own operations. So that the mortality is very small—about three per cent.

What shall I do in this case? If the kidney be found to be healthy, I would not think of removing it. Nephrectomy for floating kidney, though it has been often done, is in my opinion entirely unjustifiable until nephrorrhaphy has been tried and failed.

Nephrorrhaphy.

The patient is placed on her left side over a pillow, in order to make the most room between the twelfth rib and the crest of the ilium, and the incision is made obliquely midway between the last rib and the crest of the ilium. Having cut through the abdominal walls, I shall reach the kidney and stitch it to the fascia of the posterior abdominal wall. For this purpose I shall use thoroughly boiled aseptic silk, as it will not be absorbed too quickly. One of the causes of failure in some of these cases is the use of catgut, which quickly disappears before the kidney has become sufficiently adherent. I shall insert my stitches, not through the perinephric fat, nor through the capsule of the kidney, but, as I have done in two other cases with admirable success, through the substance of the kidney itself, and fasten them to the lumbar aponeurosis. I shall then allow the wound to remain open and to heal by granulation. It is surprising how quickly a wound in the loins fills up. In one case in twenty-four hours the wound was completely filled up by the bulging tissues. The abdomen, as well as the back, must be carefully prepared, so that everything will be aseptic.

As the patient rests upon her side the last rib is distinctly seen, and here below is the crest of the ilium. The incision is midway between these points running diagonally forwards and downwards towards the crest of the ilium. Here is the anterior border of the quadratus lumborum, and here you see the peri-renal fat. I am now ready to have the tumor pushed up into position.

How shall I tell whether what I feel and see is the kidney or the liver? In one of my other cases I came upon the liver by accident, but no harm followed. One point of distinction between the two organs, normally, is that the liver moves with respiration while the kidney does not. But here we cannot depend upon this, as we have a floating kidney. But we can usually decide by the difference in color, and by the difference in the density of the two organs. Still, it is not always an easy matter to determine, but if you can pass your finger above the upper border of the organ you can determine whether in size, shape and position it is the kidney or the liver. I am now endeavoring to reach the kidney with my fin-

ger in the wound. I can distinctly feel the psoas muscle, and now I reach an organ which, though I can feel but the upper surface, I am sure is the kidney. I shall tear through some of the peri-renal fat. It is said that absorption of this fat is often a cause of floating kidney, but in this, and my two preceding cases, I have found no deficiency of fat.

It is much more difficult to find the kidney in these cases than in an operation upon the kidney in its normal position. For example, last Saturday I did a colotomy, and the first thing I saw was the kidney. I have now harpooned the organ with a tenaculum as it lies deep in the abdomen and by it draw up the kidney and grasp it securely with this volsella. I shall lay bare the kidney as far as possible, to determine by touch and sight whether it is normal or not. My fingers here, instead of doing harm, will do good by exciting a certain amount of inflammation, which will aid in the formation of adhesions. As I draw the kidney down I can see the border of the liver moving with the respiration through the peritoneum. I can now feel the renal artery, and careful touch shows no disease. Next I insert my first stitch through the aponeurosis at the upper end of the wound and pass it half an inch deep into the substance of the kidney. There is surprisingly little bleeding following this suture. I am particularly careful to insert my stitches well into the lumbar fascia where I can secure a firm hold. Next follows a similar suture at the lower end of the wound and then two more anteriorly and two posteriorly. Now you will observe that I have the kidney well fastened, and I shall remove the volsella before I tie the stitches. I shall watch the urine very carefully for the next few days for any trace of blood. In my former two cases I did not find any.

I shall not sew up the lumbar wound, but shall simply dress it. I shall, however, insert two stitches ready for closure to-morrow if I so desire. When the patient lies upon her back, the edges of this now gaping wound will be in much closer apposition. My purpose is to get thorough union by cicatricial tissue, as in the radical cure for hernia. This wound will close, to a large extent, in twenty-four hours. As a dressing I place a large amount of bichloride gauze over the wound, especially at the back, and over this a piece of "rubber dam." On this is placed a pad of cotton, and the whole secured by a flannel binder fastened around the body.

In the kidney, as in other parts of the body, it is surprising how much violence can be done, if done antiseptically. Here I have made seventeen punctures into this kidney and yet expect no harm to result.

[NOTE.—The patient made an uninterrupted recovery, though she suffered considerable pain for the first few days.]

Abscess of Sternum.

The next case is one which you saw two weeks ago, a colored woman with a so-called "tubercular" abscess over her sternum. You will remember that after drawing out the pus I injected a solution of iodoform in ether. The cavity has refilled and I wish to repeat the operation to-day. If I find that this does not cure, I shall probably lay the cavity open and remove all of the dead tissue I find. This injection is frequently of great service. Recently in a little girl of fourteen with a large strumous abscess of the thigh, I aspirated the cavity and injected the solution once. Complete cure followed in ten days. Here is this woman's temperature chart. The highest temperature reached was 100.8°, the day after the operation. Since then it has ranged between 98½° and 99°. You will observe, now, how this abscess has been restored. Here is a mass, very soft, with no possible question as to its nature. The color of this pus has changed. It was a bright yellow before, but it is now dark-brown and almost without odor even of iodoform. The cavity has now been emptied by the aspirator, and I shall inject some of the solution, holding the handle of the syringe up so that no air shall enter. I have injected two and a half ounces which I press all over the surface of the cavity. The point of entrance is protected with a piece of rubber plaster.

[NOTE.—The wall of the "abscess" was so thin that it burst a few days later. At the next clinic it was laid open, freely scraped so as to remove all the tubercular granulative tissue, was then packed with iodoform gauze and speedily healed. The bone was not involved.]

Scirrhus of Breast.

I bring now before you a form of scirrhus of the breast, which has invaded the skin with the production of a small ulcerating nodule. The glands of the axilla are already involved, and I shall, therefore, remove them. Her history is as follows. She is fifty years old, married and has three

children. She says she was well until eight months ago. At that time she noticed a lump an inch above the left nipple and, at the same time, experienced severe neuralgic pains. This lump was the size of a small marble and was immovable and hard. As it grew the pain increased. For the past two months the pain has been excruciating; and when it occasionally ceases for a short time it is followed by a sensation of burning.

I must make a large incision in order to include both nodule and nipple. Having done this I proceed to enucleate the gland in the usual way. In this case I shall not remove the pectoral muscle, as the tumor does not seem to be at all adherent to the muscle. I have now removed the gland completely and shall proceed to clean out the armpit. To do this, I prolong my incision across the axilla, and I must exercise considerable caution because of the important vessels which are here. Formerly I carried this incision along the border of the pectoralis major, but I often found that the resulting linear scar acted as a band and prevented free upward movements of the arm. Of late I have been particular to carry it through the middle of the axilla and so have got rid of this hampering sequel to a great extent. I next dissect all the fat and the glands lying in its meshes, whether enlarged or not, for I fear even small and apparently healthy glands. The microscope would probably reveal the early stages of infection even in these. Always examine all the way up to the clavicle, for often the glands are infected even up to this bone. Next comes my usual double tubular and capillary drainage by rubber tube and horse-hair. I insert the sutures and apply the dressing which must include not only the chest but, by a second flannel binder, the arm too, so as to secure absolute rest.

[NOTE.—The wound was entirely healed in a week.]

A QUININE FACTORY IN BRITISH INDIA.—The *South of India Observer* states that there is a probability that the Wynaad Planters will start a quinine factory of their own, for the treatment of bark grown in their district. If by united effort such a factory could be established, it is thought that much benefit would result to the planter, in the saving of freight on a large quantity of useless material now transported.

COMMUNICATIONS.

DIPHTHERITIC PARALYSIS OF RESPIRATORY MUSCLES, INCLUDING DIAPHRAGM: RECOVERY.[1]

BY GEO. W. RACHEL, M. D.,

VISITING PHYSICIAN TO ST. MARK'S HOSPITAL AND PHYSICIAN TO THE GERMAN POLIKLINIK, NEW YORK.

The occurrence of paralysis after diphtheria is a well-known clinical fact, although the precise manner of its causation is not as yet fully understood. It seems, however, that we are to-day, much nearer to an understanding than heretofore, the latest researches of Prof. Brieger[2] having shown that the micro-organism of diphtheria very probably causes the formation of certain deleterious substances, related to the peculiar group of bodies called ptomaines, the violent, deadly action of which Brieger has himself so successfully investigated.

The history of the case which I shall relate is a remarkable one; for there are comparatively few cases reported in which the diphtheritic poison caused such general paralytic symptoms, and still fewer in which the respiratory muscles — the diaphragm more especially—were implicated.

On November 7, 1887, I was called to see Nellie P., three years and ten months old. The little girl had been taken suddenly ill during the night with fever and vomiting. I found some diphtheritic patches on the tonsils, especially on the left side. The temperature was 104° F. On the fourth day (November 11) there was some exudation in the nostrils and swelling of the glands behind the angle of the jaw on the left side. On the sixth day fluctuation was felt, and an incision was made, quite good-looking pus escaping. The nasal diphtheria at that time was quite marked; still, everything went well: the abscess healed within five days and on the fifteenth day (November 22) I discharged the little one as cured.

On December 10, that is, eighteen days later, I was again called. I was told that the child's head dropped forward sometimes and was then swinging to and fro for some minutes. She had also been noticed to

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[1] Read before the Section on Pediatrics of the New York Academy of Medicine.

[2] *Berl. Klin. Wochschr.*, Nos. 11 and 12, 1890.

stumble and nearly fall occasionally. On examination I could not observe anything abnormal in the child's bearing. She carried her head erect and seemed to have perfect control of her muscles. She had no fever, her pulse was 90 and her heart-sounds were normal. Her palate was not paralyzed, sensation and reflex action being both perfect as well as speech and deglutition. I prescribed some extract of nux vomica and enjoined as much rest as possible.

On December 13 and 16 I saw her again, and was told that she was improving. Examination negative. No albumin in the urine, which I had examined on several occasions before. Treatment continued.

On December 22 I was called in great haste, and was told that the child was dying from suffocation. The report given with the message was, that on December 20 some cough had set in and the child had been seen to walk totteringly for a short time. But she did not complain at all, was lively and played and even sang until the morning of the summons.

On entering the room I heard the child's rattling, and found her lying on her bed, exhibiting intense agony with peculiar respiratory movements which will be described hereafter. She was livid, almost blue, squinting with her left eye, and unable to move a limb, to raise her head or even to turn her body. She could not speak, in spite of efforts she evidently made to answer questions. I knew her to be a very intelligent child for her age and of an usually amiable disposition and lovable character; indeed, she has been and is to-day the pet of the family without being spoiled by it. But she now would not answer questions which I put to her myself, although we had always been good friends. Instead, she only gave me a half-sad and half-anxious look from her beautiful deep-blue eyes, which stared at me in a piteous way because of their unwonted squint.

Suddenly came on one of those terrible attacks of which her mother had just told me and which she, quite appropriately I think, called "storms." The rattling in the girl's chest became extremely violent; apparently, there were attempts at coughing, but no sound except a low gurgling in the throat was noticeable. "The cough was aphonic and ineffectual; it lost almost entirely its explosive character," as Pasteur[1] has well put it. The child's features did not express much of the anxiousness she must have felt with every attack; only her tearless eyes, staring fixedly from her livid face showed the extreme dyspnœa from which she suffered.

On introducing my finger into the throat, I found it filled with mucous secretions, which I removed. Gradually the violent action ceased, but respiration remained abnormal and was evidently insufficiently performed, and the rattling continued.

I found the temperature to be 100.5° F., the pulse 120 and the number of respirations 52, with no albumin in the urine.

I now had the child stripped to make a thorough examination. On inspection the respiratory movements of the chest were seen to be limited; they were mostly confined to the lower portion. Those of the abdomen were peculiar; it was drawn upward during inspiration and returned downward quite suddenly on expiration.

On percussion no dulness was found anywhere and auscultation revealed only numerous râles, mostly large, all over the chest, but no bronchial breathing.

For some time I was puzzled what to make of the case, how to account for the severe dyspnœa in the absence of any serious bronchial or pulmonary lesion. The condition could not be due to any cardiac complications, as the pulse, although quite accelerated, was pretty good in quality. Taking in consideration the complete paralysis of nearly all the voluntary muscles of the trunk and extremities, I studied once more the movements of respiration. It was evident that the upward and downward movement of the abdominal parietes and contents was performed in an entirely passive manner. The flabbiness of the abdominal muscles was clearly visible, replacing the normal tension we are wont to see in a well-nourished child. Furthermore, the abdomen, instead of descending and protruding with the inspiratory movements of the diaphragm and returning to their original position in an upward direction, with expiration, showed just the reverse type; the conclusion was evident that the diaphragm did not perform its function. This important muscle was paralyzed!

Beside this serious condition, it was evident that the accessory muscles of respiration were unable to come into play, the pectoral muscles and the scaleni showing no contraction whatever. The child, being

[1] *Lancet*, May 14, 1887.

thus seriously handicapped, respiration and thereby life was only sustained by the limited action of the serrati muscles and the intercostals and the elasticity of the lungs and thoracic cartilages.

The movements of the abdominal walls and contents, in a manner opposite to the type we are accustomed to observe when normal diaphragmatic respiration is present, were unmistakably passive, due to suction, caused by the paralysis of the diaphragm. The limited expansion of the chest produced by the action of the external intercostals, the levatores costarum, the serratus posticus superior and serratus magnus muscles drew the diaphragm upward and the abdominal contents followed; the volume of respiratory space in the thorax was evidently encroached upon to a considerable degree by this arching upwards of the diaphragm.

That such was the real condition of things was put beyond any doubt by the peculiar movement of the abdomen as soon as inspiration ceased and expiration began. This movement was performed quite suddenly, and consisted in the falling backward of the abdominal contents into their original position by their own weight, as soon as the suction from above ceased. The expiratory muscles themselves, *i. e.*, the internal intercostals, the triangularis sterni and the serratus posticus inferior played a very unimportant part, while the abdominal muscles were completely paralyzed.

After the true condition of the case had been recognized, I reassured the almost distracted parents by telling them that I had hopes of saving the child, and instituted the appropriate treatment, namely, Faradization and the subcutaneous injection of strychnia.

The response given by all the superficial muscles of the trunk to the Faradic current was almost *nil*, only the superficial layers on the side and back of the thorax showing occasional fibrillar contractions. The main object was to stimulate the diaphragm to action again; this was sought to be accomplished by placing one pole on the side of the neck, over the course of the phrenic nerve, and the other directly over the under surface of the diaphragm, which was not at all difficult, since the flabby condition of the abdominal muscles allowed the electrode to be easily pushed far upwards under the ribs.

The solution for hypodermic injection was prepared by having dissolved five milligrams (gr. $\frac{1}{12}$) of the sulphate of strychnia in ten grams (150 minims) of distilled water. Of this solution 15 minims at first, but soon 20, 25 and 30 minims were injected, three times daily in the beginning and later on only twice a day, the doses being from $\frac{1}{120}$ to $\frac{1}{60}$ of a grain (0.0005 to 0.001 gms.) respectively.

No other medication was used except nitrite of amyl inhalations when the patient had severe spells of dyspnœa, and several enemata of glycerine when there had been no passage from the bowels for twenty-four hours.

The whole amount of strychnia given up to January 1—that is, the tenth day—was about three centigrammes (one-half grain), and the only symptom noticeable due to this comparatively large quantity in so young a child was strangury, which was observed three times altogether.

Recovery took place very gradually in the beginning; the only words the child muttered in the afternoon of the second day (December 23) were: "Oh! my neck! my neck!" After this she was able to answer questions slowly and indistinctly in a whisper.

On the fourth day the abdominal muscles showed the first slight reaction to the Faradic current, which had been used three times daily.

Not until the seventh day did her aphonic voice change partially into audible speech. On that day also the secretion of tears, which had completely ceased, began to show again. The child was awfully cross, and tried to hit and kick those around her, although hardly able to move her limbs. She even wanted to hold the spoon again and to eat unassisted, and did not want to be fed by others any longer. Her cough, almost incessant during the first days, had since December 27 begun to relax somewhat in frequency and severity, which had prevented her from taking food and drink in the beginning.

On this day she also showed the first signs of discomfort when the Faradic current came into play. From then until the fifteenth day, when Faradization was dispensed with, she cried out aloud almost incessantly during its use.

The only dysæsthesiæ the little patient complained of were peculiar feelings in her hands and feet. She said she felt as if there were crumbs of bread between her fingers and between her toes and it felt as if the soles of her feet were stroked with a fine

comb. Later on she suffered intensely for a few days with general pruritus.

Her sleep was very poor, as is easily imaginable; for, even when she had no extreme dyspnœa, she coughed or, at least, tried to cough considerably and it was necessary for an attendant to constantly remove the thick whitish mucus which collected incessantly in her mouth and throat, and which she was unable to remove by hawking and spitting.

Decided improvement was noticeable on the eleventh day; the child slept four hours at one time and even tried to sing. She was able to sit up for the first time on the eighteenth day, and could stand on her feet on the twenty-seventh day, when she complained of pain in her left foot which persisted for a week. I saw her for the last time on January 23, thirty-two days after the beginning of the respiratory paralysis and two months and a half after she first fell sick with diphtheria. She was then in perfect health, did not squint any more and has been well until last month, when she was attacked with whooping-cough. From this she has been suffering for the last five weeks, but is improving now.

The gravest feature of the case, aside from the insufficient oxygenization of the blood, was the considerable accumulation of mucous secretion in the bronchial tubes and air-cells. As there was a great deficiency of muscular power, the efforts at coughing were unavailing, and there was consequently great danger of pneumonia and atelectasis from the filling up of the lungs with this mucus.

That the latter condition—that is, atelectasis—prevailed over the lower portions of both lungs was clearly evident on the third day. There was marked dulness, especially over the posterior regions of both lungs and some bronchial breathing, from the clogging of the secretion as well as from the want of expansion, the diaphragm, backed up by the abdominal contents encroaching upon the lower thoracic space. As the temperature ranged between 99½° and 100½° F., and rarely reached 101½° F. the process could hardly be due to an active pneumonic infiltration. It was not until later that the temperature rose, and it was highest (101.6° F.) on the twelfth day. On that day the number of respirations, which had come down from between 50 and 60 during the first five days to between 35 and 45, ran up again to 62. The pulse also reached its maximum figure on that very day, beating 140 times a minute, while before then it had ranged all the way from 135 down to 105, the average being 126. At that time also bronchial breathing, on the right side below, became very marked and the cough which had subsided considerably increased again in frequency and severity.

These dreaded symptoms, however, subsided within a few days. Dulness and bronchial breathing, which had both extended up to the middle of the scapula on the right side, disappeared above and only atelectasis persisted. This was appreciable as late as the eighteenth day, especially on the left side, where it still extended up to the eighth rib. On the twenty-first day respiration in the lower portions of both lungs became more and more vesicular in character and was soon fully normal. On January 22, just one month after the onset of the respiratory paralysis, the child was discharged from treatment.

In conclusion, I should like to make a few remarks on the clinical features of this serious complication, especially as compared with that absolutely fatal one: paralysis of the heart. While heart-failure, however, is to be dreaded only in the earlier stages of the disease, and rarely takes place long after apparent recovery from the original disease, paralysis of the respiratory muscles is mostly reported to occur later on. Heart-failure is rarely observed later than a week or two after the disappearance of the primary diphtheritic process. The time for respiratory paralysis is variously stated, but it occurs undoubtedly at a later period. In the case reported here, for instance, although various symptoms of transient palsy were observed during the three weeks following the primary diphtheria, the respiratory paralysis did not set in until a full month had elapsed.

In other cases reported—and they are very few in number—this grave symptom was seen at a still later period; as, in Pasteur's[1] case, 38 days, and, in Rothmann's[2] 41 days after apparent recovery from the diphtheritic attack.

Whether, however, cases of sudden death must always be due to heart-failure may be doubted; complete respiratory paralysis might perhaps produce the same effect. The extreme dyspnœa and the consequent feeling of suffocation would certainly be present in both forms of paralysis, with this difference,

[1] L. C. 4.
[2] *Deutsche Med. Wochenschrift*, 1885, p. 900.

however: In complete respiratory paralysis no respiratory movements are possible, although the heart may continue to beat for some time, while in the cardiac form respiratory efforts will continue for a short time after the heart has ceased to perform its function. But when both the cardiac and the respiratory centres are completely overoverwhelmed by diphtheritic poison, then death must be instantaneous, both vital functions ceasing at once and forever.

In the case under consideration the heart was beating almost normally, an increase in the number of beats being the only deviation from the normal. The quality of the pulse was good, its strength quite satisfactory. This would seem to demonstrate the fact that in spite of the circumstance that both centres lie extremely close together in the medulla, one may remain in an almost normal condition, while the other is so seriously affected as that life shall be endangered, rendering a fatal issue imminent. It is another illustration of the well-known capriciousness which is displayed by the diphtheritic poison in locating its lesions, following no certain course, passing by certain parts of the body and attacking others.[1]

325 East Nineteenth Street.

THE DUTIES WHICH PHYSICIANS OWE TO PUPILS AND PATRONS OF OUR PUBLIC SCHOOLS.[2]

BY MARY E. GREEN,

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Before the present century, the entire force of medical knowledge was concentrated upon the one subject, to discover some remedy to cure disease. This, once placed above other arts, has been relegated to a secondary place, and now the whole trend of scientific study is rather to the prevention than the cure of disease. It has been demonstrated that it is the better way to serve mankind than to neglect all hygenic and sanitary laws until disease has developed in order to try some new specific.

Possibly to question the public schools and their work regarding the best physical and mental development of the young, will raise a storm of indignation, but from twenty-two years of practice and observation, I am convinced that much of the ill health in our girls and young women is due to the public school system, to the lack of recess and proper exercise, to the overcrowding in badly-heated and ventilated rooms, to the frequent examinations and the many studies required to keep up the grade work, all of which tend to develop nervous disorders.

We are united in condemning the causes of infant mortality, the impure drinking-water, the unclean streets, the cellars filled with decaying vegetables and the adulteration of food, as not only taking life, but deleterious to health. But are we as ready to denounce a system of school work that causes spinal troubles, injury to the eyes, nervous disorders, headaches and sleepless nights? School is a place where children are kept three hours in the forenoon and three in the afternoon with no intermission, and subjected to hard work and a most rigid discipline. Some years ago a Frenchman of some distinction spent a day visiting the schools of New York City. The rigid discipline surprised him. He asked if the pupils were subjected to that each day of their school life. When told yes, he gave his shoulders a shrug and exclaimed, "Why, such discipline as that would kill all the soldiers in the French army!"

Why is it that when the young man or woman enters college he or she learns for the first time that it is necessary to attend the gymnasium to practice athletic sports as a means towards preserving health? If the Delsarte system of gymnastics and expression make the young man or woman more beautiful and healthful, and the middle aged more graceful, why not give these theories to our children? Then when manhood or womanhood arrives, a perfect system of health is there also. There is much talk about enlightened motherhood and the capability of a woman determining the character and constitution of her child. It is a fine theory, but practically after the age of five years when the child becomes the property of the public schools, the enlightened mother has no more to say about studies, exercise, discipline and examinations than the most ignorant wash-woman. Almost the first thing done when a child enters school, is to begin competitive work, and the first thing one hears is a fear that the child will not pass his grade.

In children the nervous system is devel-

[1] Jacobi, *Treatise on Diphtheria*, 1880, p. 97.

[2] Read before the Michigan State Medical Society, June. 1890.

oped far in excess of the muscular system. The Spartans were wiser than we, and recognizing this fact, paid great attention to muscular development. The child remained with its mother till the end of the seventh year and then entered school where mental and physical training went hand in hand, both sexes being trained alike. The result was a very superior race of people.

How often doctors are asked why girls are not as strong as the mothers and grandmothers. Some of us are hobbyists, and we talk about late hours, bad food, heredity, tobacco, intemperance, corsets and a needed dress reform. But I believe that none of the things have as much to do towards enervating our young women as the present system known as the "cramming" system of education. The State wisely protects the child from labor in factories and mines, why not protect the brain, body and eyes in our schools?

The brain is subservient to the same physiological law as the other organs of the body. If it is carefully used, with intervals of repose, it acquires great vigor, but when overtaxed, may be so exhausted as to be incapable of thought and is often lost in utter confusion, a condition noticeable in children trying to do examples far beyond their reasoning powers, and during their frequent examinations. These children, confined by long hours of study with no intermission, are victims of a cruelty that is the duty of every physician to protest against and also against compulsory education that produces it. I do not believe that a reform can best be brought with physicians as members of school boards.

Why, do you ask?

Because from my position of observation it has appeared that when men are placed in office by the votes of the people they suddenly lose their individuality, their independence of thought, their convictions of right and wrong. To advance new ideas in opposition to old established customs would be detrimental to re-elections, and no office-holder, even on a school board, cares to behead himself officially.

Strange as it appears, when a child enters school there seems to be antagonistic forces at work between parents and teacher. The teacher becomes the sole authority as to what the child shall do and study. No matter what the condition of its health, or what its idiosyncrasies, it has entered the mill with hundreds of others to be ground through. Some teachers have a theory that children grow one-sided at home, and it is their duty to develop them into well rounded-out men and women. The child becomes the piece of putty under the teacher's hands, and it is too often nothing but putty when the molding process is completed.

And so I think that many teachers believe that during school life the children must submit to all requirements. The greatest interest I have ever seen a teacher manifest in a pupil was to hold him up to grade work. They ought at least to be treated with as much consideration as a criminal who cannot be imprisoned by a judge without the sanction of twelve men. But the reputation of the school must be maintained, health or no health. Some time ago I heard of a talented young man who has been through the high school, had finished two years' preparatory course, a four years' collegiate course, three years' theological course. He preached and gave great promise but died of "stomach trouble." I think the truth was he died of nerve force.

Dr. William A. Hammond, the best authority in this country on nervous diseases, writes me, "In my younger days, nervous diseases of children were almost entirely unknown to me; now they are the most frequent." This he attributes to the present educational system, and further says, "I regard a recess of half an hour each forenoon and afternoon session as an absolute necessity for the health of the pupil."

Men of strong physique are making a demand for only eight hours of labor. Children already have six, and bring home an armful of books to complete the day's work. The school of the future should demand fewer hours of study, combined with industrial training. Teachers ought not to make rules depriving children of exercise or to keep them after school hours. I wish every school might be under the surveillance of a board of health, composed of practical physicians who should know every rule and restriction in the school. They should determine the temperature, ventilation, hours of study and light.

But we may discuss this question, we may combat it individually, we may acknowledge the detrimental effect upon the youth of our present school system, and unless there is a concerted action and a remedy suggested to correct the evil of over-education, nothing will be done. The high-pressure plan will continue, and we may, before long, find the

schools will be run by an electric motor power. If each succeeding generation is not better and stronger, with all our knowledge of disease and the disaster imminent from disobeying physiological laws, then are not our lives failures? It is as much our duty to warn people of the outbreak of an epidemic. Those who have strong convictions of right must be fearless in asserting them.

Over the entire universe one law is recognized—that of work and rest, that of the ebb and flow, of consumption and recreation, that of sleeping and waking. All living things obey these laws save man. Let us remember that the best fruit is not that which falls from the tree before its time. Neither is that the most perfect which is forced by hot-house culture.

CLEANLINESS IN MATERNITIES.[1]

BY JOSEPH PRICE, M. D.,

PHYSICIAN TO THE PRESTON RETREAT, PHILADELPHIA.

There was a time when the abolishment of maternities was seriously considered, owing to the ghastly death-rate, and the reason of the general mortality was not appreciated. Now we are come upon an era of cleanliness, and the recoveries from child-bed are about taken for granted, barring complications entirely apart from a sanitary consideration. Not a great while ago there was an epidemic of typhoid fever in one of our great Eastern colleges. The students were prostrated in such numbers that the institution was closed. Those who were not sick or dead went home, while those who were brave enough to stay were daily treated to addresses, and listened to prayers upon the inscrutable providence of God. But after a while a sanitary investigation was made and a reeking sewer-pipe, emptying its filth and poisoning all within its reach, was found and repaired, the premises were disinfected and the visitation of Providence ceased. This is about the light in which puerperal fever was not long ago considered. We now know that in a majority of cases, especially in maternities, and illy drained and plumbed houses, it is due either to dirt or a poisonous miasm, deadly in the extreme or so attenuated as to produce annoying if not dangerous symptoms.

[1] Read before the Section on Medicine, American Medical Association, May, 1890.

It is not my intention, in this paper, to discuss the etiology or the treatment of puerperal fever, but rather to give, from my own observation and practice, what I consider essential to the avoidance of child-bed mortality and complications. First of all, the water-closets and bath-rooms should be entirely outside of the maternity proper. In even the most poorly ventilated houses, I have noticed an absence of all puerperal complications when there was no closet in the house, even where the other sanitary arrangements were most ordinary. I thus concluded that the water-closet or imperfect plumbing was responsible for a great deal of the annoying and dangerous complications noticed in the maternity of which I have charge. The directors of the Retreat accordingly had the closets and bath-rooms put outside the lying-in wards and separated from them by wide halls, through which a current of fresh air is constantly passing. The pipes in the closets are all set out from the walls eight inches, the bath tubs likewise; and all that is in any way likely to hold or retain dirt is rigidly excluded, even from these. The result was that the temperature charts of all the patients showed a lowering of their record, and a fever which was put down as due to the coming of the milk was shown to be avoidable by this improvement in the sanitary surroundings.

Of course all this must be prefaced by scrupulous cleanliness within the wards. In the first place, no bed or mattress is used a second time without refilling. Each ward, after it has been occupied about two weeks, is emptied and scrubbed twice, and allowed to air for two or more weeks, after which time it again comes into use. The wards are all treated thus in order. The patients on being introduced into the house are all given a thorough bath, their clothes are changed and they are not allowed to wear anything from the outside or to keep it within the maternity proper. On being brought into the delivery room, after having been again bathed, they are given a vaginal douche of bichloride, and are delivered antiseptically at every stage. Nothing ever comes into the delivery room that does not belong there; neither is anything allowed to be taken therefrom. After delivery the woman is removed to the ward. For napkins I use corrosive jute covered with corrosive cheese cloth. They are made for the Retreat in quantity, and are a great convenience, insuring entire cleanliness, and obviating the

necessity of washing linen or cotton napkins. These are used the first three days and are frequently renewed, especially immediately after delivery. The greatest attention is given to the linen of the patients and of their beds. No spot or stain is allowed, and when a garment is spotted or stained in the least it is removed. Clothing so removed is collected outside the ward in one of the free passages, where air is circulating constantly, and the basket for this purpose is emptied regularly every two hours by a laundry attaché whose business it is to look after this part of the work.

I shall make a still farther improvement in this respect as soon as the arrangements can be perfected, so that the collection of soiled linen shall be entirely without the building.

So far as the wards are concerned, they are ventilated by central passages at right angles having free communication with the outside air. In addition to this, each ward on one side has direct communication with one of the outside porches, enclosed simply by window walls for the admission of light and air. The laundry and all its appurtenances are outside of the maternity. The only defective regulation is that of the culinary department. This unfortunately is within the building. It should be either on the top floor or entirely outside, which is far preferable. These are the main points which I feel justified in referring to as connected with the results in the maternity within the last three years. There have been about 500 deliveries with no deaths of the mother and with a mortality of none in infants.

In private obstetrical practice, where a mixed population is absent, some of the details of the extreme measures for protection from dirt are, of course, not needed. Nevertheless, the general practitioner, if he would have a clear record and a clear conscience, must adopt a system of general cleanliness, which he must practice in a routine fashion, in order to avoid sooner or later a fatality where he will least expect it. He must see that the arrangement of the lying-in bed is not completed with dirty sheets, which soiling is supposed not to hurt, that no old carpets or table oil-cloths are used to protect the bed and that the patient has had no preceding vaginal irritative discharge; or if she has had, he should take measures to render it harmless, both for the mother's sake and for that of the infant. In these days any physician who allows a child to be born with a purulent ophthalmitis is directly responsible for it, simply because with the proper precautions this can be avoided. A scrupulous observance of cleanliness in his own person, a change of garments and a bath after the handling of doubtful cases or of dangerous cases of fever or of sepsis before entering the lying-in room, will take away the chance of poisoning the lying-in woman and render ridiculous the custom still in vogue, by which a physician, when he has poisoned a series of women, seeks to escape the danger of further malfeasance by taking a vacation, instead of going to a Turkish bath and leaving his filth behind him and coming out a clean man.

The obstetrician who goes to an obstetric case without clean hands, clean finger-nails, clean linen and clean clothes runs just as much risk as the physician who recklessly prescribes a dangerous medicine and allows his patient to take it *ad libitum*.

The whole obstetric procedure has, for its first element of success, cleanliness; for its second element, cleanliness, and cleanliness for its every element—cleanliness of the patient, cleanliness of the physician, cleanliness of the nurse, cleanliness of the instruments when they are used and cleanliness in the after attention.

A final word in reference to the changing of napkins. These, during the first three days after delivery, should be changed every hour and burned. Soft, clean old linen should be employed, and due attention should be given to protect, by napkin or pad, the bed clothing which, of course, is usually not so abundant in the ordinary private house as in the specially equipped hospital.

Insanity in Germany.—The number of lunatics in the asylums of the city of Berlin, which was 1,582 in 1882–83, amounted to 2,528 in 1889. This shows a very large increase in the number of insane persons relatively to the growth of the population. In the period referred to the increase in the population was 22.49 per cent., whilst the increase in the number of lunatics was 59.79 per cent. The number of insane persons in confinement in the whole German Empire rose between January 1, 1881, and the same date in 1886, from 34,270 to 42,669, being an increase of 24.5 in the five years, as against an increase of 3.6 per cent. in the general population in the same period.

FOREIGN CORRESPONDENCE.

PARIS LETTER.

Treatment of Endometritis with Chloride of Zinc Pencils.—Precocious Genital Development.—Treatment of Orchitis with Chloride of Methyl.—Herpes Zoster Preceding Tuberculosis.—Action of Intra-Venous Injection of the Urine of Epileptics in Animals.—Treatment of the Convalescence of Influenza.—The Bulbo-Cavernous Reflex.—Suicide by means of an Ordinary Pin.

Dr. Dumontpallier has read before the last meeting of the Academie de Médicine a paper on his method of treating chronic endometritis by means of cauterization with a pencil of chloride of zinc. The conclusions arrived at are that the treatment of endometritis by means of chloride of zinc pencils, left in the uterine cavity, is the mode of treatment which gives the most favorable results. This treatment does not bring on peri-uterine inflammatory complications. The post-operative pain can always be minimized or rendered less sensitive by an abdominal hypodermic injection of morphia. The uterine mucous membrane is renewed shortly after the operation, while the return of the menstrual flow is often observed five or six weeks after the operation; and several patients have become pregnant; as to the different forms of stenosis, they must be treated by dilatation.

At the same meeting Dr. Crivelli, from Melbourne, presented photographs of a girl only eighteen months old, which showed a great development of the genital organs. The mammary glands have the volume of a young girl of fifteen to sixteen years; the mons veneris is covered with hair; the clitoris is very large and seems to be the seat of voluptuous sensations easily developed. The parts are red and inflamed, which gives one the idea that this extraordinary genital development might be due to masturbation. An examination of the internal organs has been impossible, yet the child has already menstruated three times.

At the last meeting of the Dermatological and Syphiligraphical Society, Dr. Du Cartal made an interesting communication on the treatment of orchitis by means of application of chloride of methyl. He treats his patient by taking a piece of cotton wool on which a jet of chloride of methyl has been directed; this is then placed for 10 to 20 seconds on the scrotum on the affected side; the parts immediately contract, and the skin becomes cold and pale; care must be taken not to apply the drug too long, so as not to produce a mortification of the parts. On an average the treatment lasts a week, and in eleven or twelve days the patient is able to leave the hospital, while formerly his patients were kept for at least three weeks.

At the same meeting Dr. Lemonnier reported the history of ten patients, who, having had herpes zoster, became tuberculous. Five of them presented no trace of tuberculosis when they had their zona. Twice the tuberculosis appeared almost at the same time as the cutaneous eruption, once after six months; once after eight months, and in another case became affected with tuberculosis four years and a half later. An interesting fact is that one patient who had had an ophthalmic zona died from meningitis; while another who had presented a zona of the sciatic nerve presented genital tuberculosis.

Mr. Féré presented to the Biological Society the result of his very interesting experiments on the action of intra-venous injections of the urine of epileptics to animals. This experimenter has collected, first, the urine which has been last emitted by the epileptic patient before a fit; and the urine of the first and second emission consecutive to the fit. These urines have been separately injected to rabbits of the same weight, and the results obtained were the following:

The preparoxysmal urine in the dose of 20 cubic centimeters produced convulsions; and 25 cubic centimeters death. While the urine of the first micturition after the fit required 55 cubic centimeters to bring on convulsions, while 70 cubic centimeters produced a state of apparent death, but the animal came to after awhile. Finally the urine of the second micturition produced convulsions only at the dose of 125 cubic centimeters and death was brought about only after a dose of 145 cubic centimeters.

The conclusions arrived at are that the urine of preparoxysmal micturition, or urine of daytime, which ought to be as toxic again as the night urine as is found in the normal state, is almost thirteen times more toxic than the urine of the second part—paroxysmal micturition; while the day urine, instead of being less liable to produce convulsions than the night urine, is eleven times ½ more

toxic than the post-paroxysmal of the second micturition or night urine.

This proves that the urine of epileptics, before a fit, contains a great quantity of convulsive and toxic substances which have a tendency to disappear after the fit.

Every one who has been brought in contact with the last epidemic of influenza has been enabled to observe the difficulty with which certain patients recover from the effects of that disease. A general asthenia is produced which involved almost every organ or system, and strange to say the extreme weakness in some patients was not at all in accordance with the severity of the disease. Dr. Huchard recommends a certain number of preparations which he has found very useful in the convalescence of that disease. In severe cases, he has used hypodermic injections of sulphate of strychnia; also caffeine, which, before acting on the heart, strikes the nervous system. The following preparation he recommends:

℞ Benzoate of sodium
Caffeine . . . . . āā 32 grains

Divide into eight powders; four to be taken in the twenty-four hours.

He also recommends hypodermic injections of caffeine.

℞ Caffeine . . . . . 4 parts
Salicylate of sodium . . . . . 3 parts
Distilled water . . . . . 6 parts

Each syringeful to contain 6 grains of caffeine. Six to eight injections should be given daily. Phosphorus preparations, among which the phosphates, in doses of one to two drachms a day, or preparations of phosphite of zinc are also to be recommended.

Dr. Onanoff has proposed at the Society of Biology, to designate, under the name of "bulbo-cavernous reflex," the sudden contraction of the ischio and bulbo-cavernous muscles which is brought on in man by the mechanical excitation of the glans penis; which he thinks to be of great diagnostic and prognostic value in certain diseases. To obtain this reflex, the index of the left hand is placed in the region of the bulb of the urethra; while with the right hand, the dorsal aspect of the glans penis is rapidly rubbed with the border of a piece of paper; this brings on a contraction which is soon felt by the left index. The results obtained by the author are the following. In sixty-two normal adult subjects, who presented no trace of a nervous disease, the bulbo-cavernous reflex was always present. In old men, who have lost their vitality, this reflex is abolished or almost imperceptible. In three cases of common hemiplegia in which the genital organs had not been influenced by the disease, the reflex was found normal and not exaggerated. In two cases of transverse myelitis in the superior lumbar region, the reflex was certainly exaggerated, the erection taking place without the patient noticing it. In progressive locomotor ataxia, it must first be remarked that urinary troubles seem to have no influence on the bulbo-cavernous reflex; but when the reflex is found in those patients, their sexual function is intact or exaggerated, while, if the reflex is suppressed, they never have complete erections. Yet, it might occur that certain ataxic patients have observed a diminution in their genital function while the reflex still exists. In those patients, this diminution in the genital function will be a passing trouble, which will disappear under the influence of treatment; while if, with this diminution of sexual power the reflex is abolished, the impotence will be permanently established. The reflex was present in nine cases of neurosthenia with complete or partial loss of the genital functions.

The bulbo-cavernous reflex does not depend on the sensibility of the mucous membrane of the glans; for the author has seen an exaggerated reflex in ataxic patients, in whom sensation was greatly diminished.

The conclusion arrived at is, first, that in man in the normal state, such a reflex exists; second, in cases of interference in the genital function, the presence of this reflex indicates a dynamic origin which allows one to conclude to a favorable prognosis. The absence of this reflex will indicate an organic lesion, and therefore will confirm a grave prognosis.

Dr. Magnan has observed a case of suicide by means of an ordinary pen. The patient belonged to the class of anxious melancholics and had several times attempted to commit suicide; finally she succeeded, by means of a pen introduced under the left mammary gland. The pin was an ordinary one, an inch in length and penetrated in the sixth intercostal space, passed through the pericardium and injured the myocardium in different regions. Death took place by syncope, the cardiac arrest being due to the effusion of blood which

filled the lower three-quarters of the pericardium although no important vessel had been wounded.

Dr. Brown-Séquard remarked that this proves that acupuncture of the heart, which has been several times recommended, is a dangerous process.

PERISCOPE.

Dentition.

In a clinical lecture on teething, in the *Archives of Pediatrics*, July, 1890, Dr. Wm. T. Plant, of Syracuse University, says:

Though a physiological process, dentition is often attended with so much pressure and hyperemia as to cause both local and general symptoms. Some infants, indeed, get their teeth so easily that there are no signals of discomfort to herald their coming, but this is not the rule. The earliest local token of teething is a marked increase in the salivary and mucous secretions of the mouth. Until after the third or fourth month the salivary glands are almost inactive, but as soon as, or even before, dental activity begins, the mouth becomes full of fluid, which, as the infant has not yet wit enough either to swallow or eject, slavers over the chin and front of the chest. When the tooth has come through, the drooling becomes less, but increases again with a renewal of active dentition.

Fever is a frequent attendant on teething. It may be slight and of little account, but not seldom it is so high as to cause apprehension of danger. Perhaps its most distinguishing feature is its erratic course. It comes and goes regardless of the rules that ordinarily govern febrile movement. It may last but for a day; it may continue for many days; it may come and go several times before the teeth that caused it have erupted. The morning temperature may be as high as, or higher than, that at the close of the day.

Prominent among the phenomena of dentition are those that indicate an irritable and highly impressionable state of the nervous system. Unusual fretfulness; fits of screaming; eyes half opened and rolled upwards in sleep; night-terrors; obstinate wakefulness; jerkings of muscles; squinting; carpo-pedal spasms;—these and other like phenomena show that the "nerves are set on edge," and are not infrequently the forerunners of general and alarming convulsions. In the hot months the most common and troublesome concomitant of teething is an intestinal flux. It is doubtless, so far as the teeth have to do with it, a result of reflected irritation. In summer it is the constant menace of the whole infant population, especially of bottle-fed babies in cities. Very often there is gastric as well as intestinal irritation, and the vomiting may be as annoying as the diarrhœa. Occasionally the onset of the disorder is so abrupt and the symptoms so violent and unrelenting, that it is properly called cholera infantum. In these, and even in cases that are less severe, there is extreme thirst and restlessness and rapid wasting. In cold weather the air tubes are much more likely than the bowels to receive the brunt of the reflected irritation. During dentition many infants are extremely sensitive to drafts and temperature changes. Another cause of taking cold is in the wetting of the clothing over the chest by the copious drooling. For these reasons, a "tooth cough" is extremely common in damp and wintry weather.

Less frequently than diarrhœa or bronchial catarrh is a disordered urination due to dentition. It may show itself under different forms. There may be a constant desire and effort to empty the bladder when there is nothing in it, or a spasmodic retention, or an annoying dribbling from incontinence. These symptoms will not often continue for more than a day or two at a time, but they may recur again and again before the teeth that caused them have erupted.

Now and then there is a troublesome otalgia, apparently the result of a reflected irritation, or an acute coryza, as shown by snuffling, sneezing, and red and watery eyes. In other cases the irritation expends itself in a surface eruption of eczema, or erythema, or urticaria, especially about the face and scalp—the "tooth rash" of nursery talk.

In regard to treatment Dr. Plant says: Having local and general symptoms, there must also be local and general treatment. When the drooling is copious, saturation of the clothing over the bosom should be prevented by a slavering-bib covered with rubber cloth or other impervious material. An over-secretion of saliva may be restrained by belladonna. As little as a drop, or even a half drop, of the tincture once in four hours may do as well as more. A teething child likes to press its gums against hard substances. The rubber ring now made for the purpose answers it better than the bit of

wood or the coin of my infant days. The pretzel does very well also.

Until recently it was thought to be the most important part of the local treatment to cut the gums. It is now known to be needless and useless in nearly all cases, and possibly because of that it has fallen into an unmerited desuetude. Though it is rather the fashion now to condemn the use of the gum-lancet altogether, Dr. Plant is of the opinion that when a tooth is nearly through and the gum is seen to be tense over it, a free cross incision may liberate the crown and give quick relief to a suffering child. I would advise you not to use the lancet for a simple elevation of the gum, for that is no sure indication that the crown is near the surface. Such an appearance may come and go several times before the tooth has erupted; in fact, we may never safely predict the speedy cutting of a tooth unless its sharp edge can be felt beneath the gum. If there is gingivitis, scarifying the gum by light touches of the lancet will lessen the hyperemia and afford some relief.

For feverishness, nervous erethism, and fretfulness the bromides will render good service. From two to five grains in solution with syrup flavored with peppermint or winter-green, may be given and repeated as may seem necessary. If the infant is overwakeful an equal quantity of chloral may be given in similar solution. Aconite he recommends in *small* doses, repeated often. He puts from five to twelve drops of the tincture in a full goblet of water, and gives a teaspoonful every fifteen minutes for two hours; then every hour.

It must not be forgotten that a profuse diarrhœa with dentition is as exhausting and as certainly fatal, if not checked, as though due to any other cause. So, if the movements should exceed three or four in the day, they must be controlled.

In convulsions, if there is a tense gum over a crown that can be plainly felt or seen, there can be no harm in making a crossed incision through it. Very generally, however, other treatment will be needed, as the hot bath and the bromides, with or without chloral. When there are threatenings of convulsions Dr. Plant treats them with a light dose—one to three grains—of calomel, or hydrargyrum cum creta—two to five grains—with about the same quantity of powdered rhubarb, or followed after some hours by a dose of castor oil or castoria. Besides that, he gives one of the bromides in such doses and at such intervals as may be necessary to control the convulsive tendencies.

Treatment of Gangrenous Bowel in Strangulated Hernia.

In an interesting paper in the *Edinburgh Med. Journal*, March, 1890, Mr. Francis M. Caird, F. R. C. S., Assistant Surgeon, Royal Infirmary, Edinburgh, discusses the treatment of strangulated hernia with gangrenous bowel. He says it is well to note the more usual sites and extent of the gangrenous areas. We may do this by observing the state of the bowel when exposed during operative interference, or by the examination of museum preparations. Femoral hernia, more especially, affords us an opportunity of inspecting good examples of this condition.

In regard to the question of position, it appears, from a study of the preparations and cases, to which he has had access, that we may find changes of a gangrenous nature situated as follows:—First, on opening the sac, and within it, a projecting knuckle of bowel may be met, gangrenous on its free border. Second, in dividing the constriction at Gimbernat's ligament, a similar condition may be found immediately beneath the point of stricture. Third, on pulling down the dilated vascular gut from out the abdominal cavity, it may be found damaged above the entrance into the sac. Fourth, but rarely, there may be a gangrenous patch on the collapsed portion within the abdomen beyond the sac. It seems that necrosis may occur at any one or even at all of these points.

If the bowel is now removed and spread out so as to expose the gangrenous areas more clearly, it may be noted that, if several be present, they occupy the positions already indicated, and are separated from each other by a distinct interval of comparatively healthy tissue. In regard to the extent of the necrotic change, one may note that the area which lay beneath the constriction is more or less annular in form. It resembles a signet ring, the bezel towards the free convex border of the gut and the ring, more or less complete, narrowing and tailing off towards the mesentery. The patches at the remaining sites are all more or less oval, run in the long axis of the bowel and lie opposite to the mesenteric attachment. Their extent will naturally

vary with the duration and circumstances of the hernia.

As to the treatment of the constricting agent, when one meets with gangrenous bowel in a hernial sac it is evident, Mr. Caird says, that it must be divided in order to judge of the condition of the bowel beyond. And in cases where the bowel has already ruptured, a stream of antiseptic lotion may be employed to thoroughly wash away fecal extravasations, and to disinfect while the stricture is divided.

There is now a choice of treatment. If the gut has not yet actually given way, the surgeon may return it, hoping that within the peritoneal cavity there is still a remote chance of its recovery. Or, again, he trusts to the local paralysis preventing it from straying far from the wound, he hopes that the local adhesions and effusion may shut off the damaged gut from the peritoneum, and that if, after all, death of the part should take place, that in this fashion general infection may be prevented, and at the outside only a fecal fistula ensue. Again he may prefer to stitch the gut to the wound, thus forming an artificial anus. Or, again, he may venture to carry out the more heroic resection of the gangrenous gut and by suture restore its continuity.

Mr. Caird adds yet another method which, under certain circumstances, might prove highly serviceable. It is, that in place of making an artificial anus or practicing resection, the rupture in the gut should be closed or its formation prevented by inverting the dead or dying tissue and suturing the sound wall of the bowel over it. The invagination thus carried out will be at the expense of the circumference of the gut, and must, of course, leave a somewhat diminished lumen.

The gut should be withdrawn, and closure effected by means of Lembert's suture. The needle must enter healthy tissue, and emerge in tissue that is fairly healthy, and the stitches should begin above and end beyond the gangrenous area, just as in suture of a ruptured bladder. The invaginated portions subsequently slough, and are passed by the natural channels.

The method is chiefly applicable to the small gangrenous areas which lie in the long axis of the gut. It might also save resection in bullet and other wounds of intestinal tract. It can be carried out rapidly, there being nothing to cut away, and therefore no hemorrhage to control. The stitching is rendered much less troublesome by the use of Dr. J. M. Cotterill's intestinal needles.

As to the evil results which may follow from such treatment, Mr. Caird says, one dreads the formation of a stricture. However, in the case of suture in the *longitudinal* axis of the gut, where not more than one-third of the circumference is included, one would probably have little to fear on this score. Little or no contraction is likely to follow after the primary suture. And, again, if we are dealing with the small intestine, the fluid character of the contents is not likely to give rise to much trouble, even with a somewhat narrowed lumen. On the other hand, where there is a damaged *ring* of tissue, general contraction giving rise to a marked stricture often ensues.

The method described is an attempt to apply Nature's teaching. To what extent we may venture to diminish the lumen of the bowel, can only be learned by vivisection or the study of cases in man. In every case a careful selection of some one of the various plans of treatment must be made, and this can only be determined by the condition of the patient generally, the local state of the parts and the resources of the surgeon.

Oil on Waves.

In a lecture on "Foam," Lord Rayleigh insisted that foaming liquids were essentially impure, for pure liquids will not foam. For instance: neither water nor alcohol can be raised into a froth, although a mixture of the two may be to a certain extent. The addition of gelatine to water in the proportion of 1 in 100,000 develops the foaming quality quite noticeably. Of course, the best-known foaming liquid is a solution of soap, such as the children use for blowing bubbles. A liquid foams when its films have a certain durability. In all liquids these films exist, since a bubble as it rises is covered with a thin film. Now, the most striking property of films is their tendency to contract, and they may be regarded as being in the condition of a stretched membrane, as of India-rubber, with the difference that the tendency to contract never ceases. An air-bubble will force the air back through the pipe, and a loop of silk floating on a film will be forced into a circle the moment the film inside it is ruptured. Oil forms a film on the surface of water, and covers it entirely, even if the mass of the oil be col-

lected into drops. This is well shown by dropping a particle of oil on to a vessel of water lightly covered with sulphur flour. The sulphur will be immediately driven to the edge by the spreading film. The reason of this is that the tension of the water-air film is greater than the combined tensions of the water-oil and oil-air films, and consequently pulls out the oil-film. It is possible to reduce the surface tension of water by mixing it with various substances, such as ether and camphor. Camphor scrapings placed on the surface of pure water enter into vigorous movement, because the dissolved camphor diminishes the surface tension of the water; but if the water be contaminated by the least quantity of oil or grease, the motion ceases. Lord Rayleigh made several experiments to find what thickness of oil-film would accomplish this: he found it to be about 1½ millionth of a millimeter. This thickness bears to an inch the same ratio that a second of time bears to half a year. Lord Rayleigh explains the calming action of oil on the sea as follows: as the waves advance, the surface has to submit to periodic extensions and contractions. At the crest of a wave the surface is compressed, while at the trough it is extended. So long as the water is pure, there is no force to oppose this; but, if the surface be contaminated, the contamination strongly resists the alternate stretching and contraction. It tends always, on the contrary, to spread itself uniformly, and the result is that the water refuses to lend itself to the motion which is required of it. The film of oil may be compared to an inextensible membrane floating on the surface of the water, and hampering its motion.—*Science*, June 27, 1890.

Cholera in Europe.

Whilst watching to see whether cholera was this year to advance from Mesopotamia and Persia by means of the lines of human intercourse between those countries and Southeastern Russia news has come to the effect that Western Europe is again the seat of this disease, an outbreak having occurred in one of the Mediterranean provinces of Spain—namely, Valencia. The first place affected was the village of Puebla de Rugat, with a population of some seven hundred inhabitants, where the disease is believed to have commenced on May 13 last. At first came the usual denials as to the true character of the malady; then it was admitted that it was choleraic in character; and, lastly, came an official announcement by the Minister of the Interior to the Senate to the effect that cholera did certainly prevail in Valencia, but that it was not Asiatic cholera. This last statement involves an extremely interesting consideration. The commencement of the disease in Puebla de Rugat is said to have corresponded with the excavation of a considerable amount of drain-sodden earth in the village; and, remembering the history of the province of Valencia during the European epidemic of 1884–1886, it is quite possible that we may here be seeing a recrudescence of the disease, owing to the circumstance that the contagium of cholera, which had been lying dormant in the earth, has by reason of the excavations and consequent exposure to sun, rain, and other new conditions, become again active; and in this very limited sense the present outbreak may fairly be regarded as a local cholera, rather than a cholera newly imported from Asia or elsewhere. But the history of the disease in Spain is essentially that of true cholera, as that term is generally understood. By June 15 it had steadily spread, until out of one hundred cases there had been twenty deaths. In the meantime, also, it had extended to other places near at hand, and notably to Montichalvo, where the well-known virulence of real cholera showed itself by causing seven deaths out of a total of fourteen attacks. People now fled from the affected localities, and in this way further diffusion of the disease occurred, one death taking place at Albaida, and one attack being reported from Valencia itself. The latest intelligence refers to sanitary cordons around the infected villages, from which two-thirds of the population had already escaped; to certain operations intended to secure the burning of the polluted soil excavated at Puebla de Rugat; to quarantine restrictions against arrival from Valencian and other Spanish ports; and to measures of sanitary reform after the mischief has been induced. Some diminution in the epidemic is also reported. Recalling the circumstances of the last epidemic in Spain, it should be remembered that some 300 cases of cholera occurred in that country in 1884, the main outbreak being in the province of Alicante, but Valencia also suffering. This occurrence was followed in 1885 by a widespread epidemic which, according to the official returns of the Director-General

at Madrid, caused 338,685 attacks and 119,620 deaths, the deaths in the province of Valencia amounting to 21,612. And lastly, cholera still prevailed in certain parts of Spain during the early months of 1886. There is thus an interval of four years between the former and the present outbreak; and it is not difficult to conceive that the link between the two may have remained on Spanish territory.—*Lancet*, June 21, 1890.

Meningitis from Ear-Disease.

At the meeting of the Boston Society for Medical Improvement, April 14, 1890, there was an interesting discussion on meningitis due to ear-disease (reported in the *Boston Medical and Surgical Journal*, June 26, 1890), in which Dr. Spear referred to the feeling of hopelessness of recovery where meningitis sets in. He excepted cases coming early under treatment. He recalled three cases of meningitis, from extension, in which recovery took place after careful watching and very heavy dosing with bromides and morphia. Perhaps he should except one other case in which there was partial unconsciousness noticed at the first examination. The patient failed to react to most of the tests. He answered to his name, but failed to give any history, and in a day was entirely unconscious, remained so a week and went on the usual course. He made a full and complete recovery not only from the meningitis but from the hypostatic pneumonia which developed from his long lying in bed, and also recovered from a severe hemorrhage of the lungs which followed that pneumonia. The two other cases were of simple meningitis following acute inflammation of the middle ear, which also recovered under anodynes pushed until the heavy bounding pulse was noticed to fall, and followed by stimulants. He thought the importance of recognizing a meningitis is clearly shown by an experience which he had in consultation with several gentlemen in Boston about two years ago. It happened in this wise: A patient was referred to him for pain in the ear. On examination he found a slight congestion and thought it necessary to do paracentesis of the membrana tympani to relieve the pain. The patient refused to submit, however, and went away. In three weeks he returned with the same story of pain in the ear, and had suffered just as in the two weeks previous to his first call. Dr. Spear insisted upon his submitting to some treatment. He went home. The third time he heard from him was in consultation with his family physician and another gentleman. He found him unconscious, comotose and practically moribund. He examined the ear then and found the membrana tympani was perfectly normal, except that it was thickened. There was no perforation, no purulent discharge, no outward evidence of any disease of the ear, but remembering the history of an acute inflammation beginning and following it along, he knew the cause of the meningitis, but the case had been treated by a general practitioner as one of neuralgia. The patient died the next day after the consultation. The character of that case is one found not infrequently and gives us the most difficult cases of acute inflammation of the middle ear. It occurred in an ear previously thickened by chronic inflammatory processes, where in such cases, as one can easily see, an acute inflammatory process cannot cause the very thick membrana to rupture so as to extend outwards, and extending in some direction often takes a course through the tegmen tympani to the meninges.

Nitrate of Potash in Intermittent Fever.

Dr. J. D. Hunter writes from New Orleans to the *North Carolina Medical Journal*, June, 1890, that to answer fully and specifically the great number of communications received from physicians throughout the country, asking additional information relative to the use of potassii nitras in malarial affections, would necessitate the occupation of the greatest part of his time. He says, however, that he has treated more than two hundred cases of chronic chills of malarial origin, from a few months to years standing—many complicated with enlargement of the liver and spleen, dropsy, jaundice, etc., all more or less emaciated and anemic. Nearly every case was cured with a single dose of potassii nitras. From two to fifteen grains of the salt, according to the age of the patient, dissolved in a half ounce of water, and administered just prior to the chill or during its continuance, not only aborted or arrested the chill, but also effectually prevented its recurrence. In order to test the value of the remedy, he employed no subsequent treatment, but left the restoration to health (which was in nearly every instance

rapid and satisfactory) to the *vis medicatrix naturæ*.

He is fully assured that from two to fifteen grains of potassii nitras will usually abort or arrest a chill arising from any cause. A large dose is not well borne by the stomach, and frequently, in his hands, caused most alarming and distressful symptoms, by producing a prolonged depression of the heart's action.

Peritonitis in Women.

The *Boston Medical and Surgical Journal*, June 26, contains an abstract of a paper read before the Maine Medical Association by Dr. S. C. Gordon, in which he spoke of peritonitis in women as compared with that in men. He stated that while in the case of men peritonitis was usually fatal, in women the reverse was true as a rule.

The point was made that ulcerative appendicitis was much oftener the cause of this affection in males than in females, and that many of the cases of this disease attributed to women by statistical reports were really peritonitis from inflammatory affections of the sexual organs. The close proximity of the Fallopian tube of the right side to the appendix vermiformis renders the latter liable to frequent involvement in peritonitis coming from the tube and the general and local symptoms are so nearly alike that unless this element of tubal cause be recognized frequent mistakes in diagnosis and treatment will be made. Illustrative cases were cited. A striking feature in the differential diagnosis between peritonitis simulating true perityphlitis from perforation of the appendix or cæcum, is the remarkably low temperature in a large majority of cases; arising from the sepsis coming from the intestinal canal, because much less virulent and depressing to the nerve centres than that coming from the uterus.

In peritonitis from perforation there is usually the sudden attack of acute pain, violent retching and vomiting. In tubal cases there will be usually a history of discomfort and pain antedating the attack.

Consultation with Homœopaths.

The *Medical Standard*, June, 1890, devotes an editorial note to the inconsistency of certain medical men who are supposed to be strong supporters of the "Code of Ethics," and notes that the *Nashville Journal of Medicine and Surgery* says that at the last meeting of the Tennessee Medical Society a resolution was introduced by Dr. J. D. Cole, of Newbern, in reference to the construction of that part of the code looking to consultation with homœopathic or other irregular practitioners. Commenting thereon, the *Nashville Journal* says: "There can be no doubt but that certain circumstances might be looked upon as mitigating the stringency of this section of the code, as for example, the transference of a surgical case by an irregular to a surgeon, and it would seem that at times such a combination of circumstances have been taken advantage of, surgeons meeting and continuing in consultation with irregulars in cases entrusted to the former by the latter." The *Standard* wants to know wherein this position of the *Journal* differs from the much-opposed "emergency" clause of the New York code which led to the exclusion of the Medical Society of that State from the American Medical Association?

This inquiry is obviously intended not to get an answer, but to point out the manner in which certain men slip over to positions for going to which they have abused others.

Some Unusual Modes of Infection with Syphilis.

At the last meeting of the Association of American Physicians Dr. R. W. Taylor, of New York, reviewed the generally recognized modes, both direct and mediate, of origin of acquired syphilitic infection. He then reported cases in which the evidence was very conclusive that the syphilitic infection originated in the following ways: By means of chewing-gum; by one man to another, by means of an unnatural practice; probably from a cadaver; by means of a caustic-holder; by means of a handkerchief; probably from a bathing-suit; probably from a syringe; probably by means of a pair of drawers; by means of adhesive plaster, or through dressing of a wound; probably contracted in a water-closet; probably from a conductor's whistle; probably from a tongue scraper; probably from a towel; probably by means of a pillow; probably from a razor; by means of the fingers. All the foregoing cases, he said, carried with them important lessons, and many of them should teach

physicians that, besides treating their syphilitic patients, they should explain to them how they might become foci of infection, and make clear to them the means of preventing that great disaster to others.

Orexin.

Orexin, it will be remembered, was recommended by Professor Penzoldt as a stomachic some months ago and was described in the MEDICAL AND SURGICAL REPORTER, April 5, 1890. Since then other medical men have made clinical trials with it, one of the latest being Dr. Glückziegel. Out of seventeen cases of anorexia from various diseases, in which the compound was given, it had a good effect in fourteen, though this varied from strong stimulation of hunger to mere restoration to the normal. Glückziegel gave the pills uncoated with gelatine, and the intense burning sensation felt in the mouth if they were not immediately swallowed proved the superiority of Professor Penzoldt's prescription, which is

℞ Orexin hydrochlorate . . . . 30 grains
Extract of gentian
Powdered althea root, of each sufficient to make a mass, which is to be divided into 20 pills. Coat with gelatine.

Three to five of these pills are to be given once or twice a day with a large cupful of beef tea.

Another good mode of prescription is as chocolate-coated pills, which are very pleasant and effective in preventing unpleasant effects in the mouth.

Local Tuberculous Infection.

An accident which recently befell Dr. Gutzmann, of Berlin, may serve as a warning to surgeons and pathologists to be careful in handling tuberculous tissues. On February 19, while he was making a *post-mortem* examination on a patient who had died of acute miliary tuberculosis, the nail of his right middle finger was slightly raised from the matrix. He felt a little pricking at the tip of the finger, but could see no wound. After washing it in sublimate solution and alcohol, he forgot all about it, and used the finger in percussion without inconvenience. On March 20 it again became painful, and a tiny abscess was found under the nail. This was opened and the pus examined by Ehrlich's method, when three tubercle bacilli were discovered. The preparation was shown to several practitioners, who all identified the bacilli. The abscess was then scraped out and disinfected with alcohol. Up to the present there has been no lymphangitis or glandular enlargement, and no rise of temperature. Dr. Gutzmann regards the case as an example of local tuberculous infection.—*British Medical Journal*, June 21, 1890.

Microbes in Hailstones.

Bacteria of various kinds have been found in ice and snow, and Dr. Fontin, a Russian observer, has now proved that hailstones are not free from them. He has found that the water produced by the melting of hailstones contains on an average 729 bacteria per cubic centimeter. Neither yeast fungus nor mold was present, but nine different kinds of bacteria were found, five of which (B. mycoides, liquefaciens, luteus, sarcina lutea and aurantiaca) are already known. As the ordinary dwelling-place of the bacillus mycoides is the earth, we are confronted with the fact that microbes of terrestrial origin may be carried up into the air, and thus rain, snow and hail may be the direct means of conveying infection.—*British Medical Journal*, June 21, 1890.

Perspiration of the Feet.

Dr. A. E. Barrett, of London, recommends for the treatment of offensive perspiration of the feet the following prescription :

℞ Plumbi acet. . . . . ℥j.
Acet. destillat. . . . . ℥j.
Sp. vin. methyl . . . . . ℥ij.
Aq. ad . . . . . ℥xvj
Misce ; fiat lotio.

Essence of Pepsin.

The following formula for essence of pepsin is said to be better than that given in the National Formulary :

℞		
Scale pepsin	1 troy oz.	10.00
Cinnamon water . . .	2 fl. ozs.	20.00
Caraway water	4 fl. ozs.	40.00
Hydrochloric acid . .	1 fl. dr.	1.25
Elixir calisaya	2 fl. ozs.	20.00
Glycerin	16 fl. ozs.	160.00
Distilled water sufficient to make	4 pints	640.00

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

HOSPITALS FOR PHTHISIS.

There are times when certain subjects seem to take simultaneously possession of a number of men's minds at different places. One such is now when, on both sides of the Atlantic, the importance of establishing special hospitals for the treatment of consumption is being most earnestly discussed. In Europe this matter has been receiving most thorough and able consideration in the Society for Internal Medicine of Berlin, and the discussion has elicited the opinions on the subject of some of the most learned and distinguished medical men of that city. From the reports of this discussion we may gather much to aid us in this country in deciding what we shall do in view of the subject.

There are several ways of looking at the matter. First, what will be best for consumptives? It is now well understood that consumption is curable in its early stages, and that nothing contributes so much towards recovery as a "long purse," that is, the ability to command the best skill, to live in the proper climate, and to have suitable food and surroundings. Unquestionably a man whose resources are such that he can command these things is better out of a hospital, even the very best, than in it. But by far the larger number of consumptives have very limited means, and not infrequently as the disease progresses they lack suitable food and shelter. Such patients are better in a hospital, provided the conditions are such as to promote their recovery. Now, in a large general hospital, the number of cubic feet of air for each patient is usually too small; the ventilation is not good; during the night and early morning the air is especially unwholesome; and, moreover, when not in bed, the patient must usually be in the ward or the corridors—he cannot get pure air in abundance and of a suitable temperature. General hospitals therefore are bad for a consumptive; nevertheless, doubtless, there are cases in which, even with their disadvantages, they are an improvement over what the patient can get outside of them.

Second, what effect has the presence of consumptives upon other patients in a general hospital? The effect can be harmful only. A consumptive will contaminate more air than a well person, and his sputa are liable to become dried, pulverized, and diffused around the room, forming a source of danger to all in the ward. Nor is the danger to other patients alone.

The problem seems to stand about thus: A large number of patients with consumption, who lack the means necessary to obtain suitable food, shelter, and medical treatment at their homes, could be cured in a hospital if the conditions were adapted to their requirements; but these conditions do not exist and, perhaps, are unobtainable in our crowded public hospitals. It therefore

results that, except during temporary exigencies, a consumptive is better out of a general hospital than in it. Moreover, his presence in a general hospital is undesirable, as tending to retard the recovery of other patients and being a real danger to patients with bronchitis and pneumonia and to all others whose lowered vitality may tend to make them susceptible to tuberculosis.

On the other hand, the erection of special hospitals for consumptives, so arranged as to meet the wants of such patients, would be of very great benefit. There would be objections to answer and prejudices to overcome, undoubtedly; but these are inseparable from all advanced movements for the benefit of society. As to the increased cost which the erection and maintenance of such hospitals would entail, it should be remembered that the restoration to health and activity of a number of wage earners, many of them in the prime of life, would mean a great saving to society and would tend indirectly to balance the account.

We are happy to be able to state that a hospital for the study and treatment of consumption and allied diseases has recently been organized in Philadelphia, with a staff of earnest and energetic physicians and a body of trustees calculated to give it a very strong standing in the eyes of the general public. To this hospital we shall look for important contributions to the subject which we have just been discussing, and hope that it will strengthen our opinion as to the value of such hospitals and the wide field of usefulness which is presented to them.

EXPERIMENTAL RABIES.

Drs. Vestea and Zagari, who have for some years been investigating the action of the virus of artificial rabies in the laboratory of Cantani, in Naples, have recently published the results of some experiments in support of the theory that this virus has a peculiar affinity for the nerves, and that it seems to travel to the spinal cord and medulla by the route of the nerves rather than by that of the veins of lymph channels. These experiments are described in *Fortschritte der Medicin*, Bd. VII, and are summarized in the *Centralblatt für Chirurgie*, June 28, 1890. The results are very curious in certain respects, as they showed that when the virus was applied to a small nerve filament far from the central system it was as sure to act as when an inoculation was made in the substance of a large trunk close to the spinal cord. This seems to present a contradiction to the claim of Pasteur that bites near the brain are more dangerous than those at the periphery because of their nearness itself.

MEDICAL EDUCATION.

A recent circular announces that the American Institute of Homœopathy, at its annual meeting at Waukesha, Wisconsin, June, 1890, upon the suggestion of its collegiate committee, representing the thirteen colleges of this school, voted to require a four years' course of medical study from all students entering its colleges after the session of 1891–92. The four years' course has been decided upon by the Illinois State Board of Health, and is acceded to by some thirty medical colleges in the country; but in many one of these four years may be of study in the office of a physician. Such a requisite is too vague and indefinite. The American Institute proposes to change entirely the character of this first year, and establish certain definite preparatory courses, which will be required of every student. These will include a thorough English education, a knowledge of physics, general chemistry, botany, biology, elementary physiology and easy Latin, sufficient to enable the student to understand medical terms and formulæ. This knowledge they can acquire in colleges, institutes of technology, academies, high schools, or even under an instructor. They will be required to pass satisfactory examinations in all these branches, which will be considered equivalent to one

year of medical study, before entering upon the last three years, which must be passed in the medical school.

Such a course can hardly be regarded as an adoption of a four years' term of study, but rather as requiring three years and a good preliminary examination; but it would certainly advance the standing and attainments of medical graduates, and thus benefit the entire community.

It is interesting to note what the homœopathic schools propose to do in this direction, and we trust that their action may prove a sharp stimulus to some of the regular medical schools which as yet have not had the strength or the courage to place themselves squarely upon the platform of an advanced standard of medical education.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

INTERNATIONAL ATLAS OF RARE SKIN DISEASES. Edited by L. A. Duhring, P. G. Unna, Malcolm Morris, and H. Leloir. Parts I and II, 13x18 inches. With six full-page plates. Hamburg and Leipzig: Leopold Voss; London: H. K. Lewis; Paris: G. Masson; Philadelphia: J. B. Lippincott Co. Price, $6.00 for 1890 (two or three parts.)

If the subsequent parts of the International Atlas of Skin Diseases are equal in beauty and value to the first two before us, the complete work will be unequaled in the field of dermatology. The Atlas is edited by four of the leading dermatologists of the world: Drs. Duhring, Unna, Malcolm Morris, and Leloir. The publication is a periodical *résumé* of clinical observations and progress made in dermatological science. The text is put in English, German, and French, and is printed in clear bold type upon heavy paper. It comprises, in a form as brief as possible, the history of the disease; where possible, the results of histological, bacteriological, and experimental pathological research; the author's views as to the nomenclature of the case; the differential diagnosis; and the treatment.

The illustrations are of a high degree of excellence and very graphic. The practical value of the work cannot be overestimated. Nearly every dermatologist in the course of his professional life, either as clinician or practitioner, meets with cases of skin disease which cannot be classed under any of the hitherto known types. But means of instituting a comparison of such cases with others, and of obtaining the opinions of the profession generally are, as a rule, entirely lacking. It is in this direction that the practical value of the Atlas will be most felt. The work will not only be a valuable addition and ornament to any medical library, but also prove a faithful mirror of the most recent advances in the science of dermatology.

J. B. Lippincott Co. are the sole agents of this publication in America.

A MANUAL OF CHEMISTRY FOR THE USE OF MEDICAL STUDENTS. By Brandreth Symonds, A. M., M. D. 8x6 inches, pp. 154. Philadelphia: P. Blakiston, Son & Co., 1889. Price, $2.00.

This volume adds another to the long list of epitomes, which are in recent years taking such a prominent part in the educational outfit of the medical student. Exactly what is its justification it is difficult to say. The compiler remarks in his preface that the work is not a medical chemistry, although intended for medical students, "but takes up those parts of General Chemistry which it is necessary for them to know." The reviewer has had occasion several times before this to inveigh against these supposedly necessary contractions of our medical studies as tending to give rise to widespread but superficial knowledge of absolutely necessary branches of medical training. The only possible propriety for such works is their private publication for use by individual classes as outlines of the lectures of single schools, to serve as guides for fuller reading and study of the courses which they aim to epitomize. For use by the profession they are totally inadequate; for general use, even among students, their completeness is almost invariably fallacious. The volume in hand is no exception to these remarks. While the facts set forth in its pages are undoubtedly essential, there is much more in chemistry which should be regarded as quite as important by a conscientious student. Among its class the volume in question is a fair production; but it has not escaped numerous faults of commission as well as omission. Space will permit attention to but few of those which may be noted in a very hasty examination On page 7 the reaction $2H_2O + Na_2 = Na_2OH + H_2$ should read=$2NaOH + H_2$. Although considerable attention is called to oxygen, ozone, and hyponitrous oxide as supporters of combustion and oxidizers, and the liability of confusion is implied, no attempt at separation is made. SO_2 is regarded as the most practicable and as a "disinfectant sufficiently powerful for all practical purposes"—this is notably incorrect. In the derivation of phosphorus from the ortho-phosphate of calcium no explanation whatever is given of the name or nature of the primary product $CaH_4(PO_4)_2$ (acid phosphate), nor are the acid or basic salts of these acids referred to in this portion at least of the work. We cannot but hold that more truth is expressed in the foot-note on p. 30 than in the text, when the writer quotes in the former the opinion of the American Public Health Association in the mistaken claim that running water is safe as a potable supply in any instance. The value of microscopic and biological examinations of water and the explanations of methods are exceedingly unsatisfactory and misleading in several important points. In this portion of the volume even the chemical methods of investigation are so carelessly stated as to be practically useless to one seeking for working directions. Urinary tests are open to much the same criticism. Numerous other faults might be readily enumerated, but it will perhaps suffice to add in general that the book is very uneven in its arrangement and in the quality of work; that it is full of typographical errors and that its appearance is in no special manner creditable to the publishers.

CORRESPONDENCE.

A Word of Approval.

TO THE EDITOR.

Sir: The value of a medical journal depends: first, upon its contents; second, upon the paper, type and arrangement of the matter, and last, but not least, the index. It would not make a journal valuable to be issued on the best of paper, with clear type and unexceptional arrangement of material if that material was worthless, but it would add very materially to the good material to be issued on good paper, good type and properly arranged.

I have been making a comparison of the six medical journals that I take and find that the REPORTER takes the lead in the above respects.

Yours truly,
T. J. WHITTEN, M. D.

Nokomis, Ill.

[Once in a while we indulge ourselves in publishing a complimentary letter, and this one is so pleasant that we will share it with the readers of the REPORTER.—THE EDITOR.

Hospital Physicians and Hospital Surgeons.

TO THE EDITOR.

Sir: My attention has been called to an editorial in the *Medical News*, July 19, under the heading: "The Relation of the Hospital Physician to the Hospital Surgeon," which is so astonishing that it seems to me it ought not to pass without comment. The Editor of the *News* refers to a case, which he says is within his own knowledge, in which a hospital physician had not enough confidence in his surgical colleague to put under his care a patient needing urgently—the physician thought—an abdominal section. The editor adopts so thoroughly the attitude of this physician as to speak of the surgeon with great contempt, charging him with "conceit," and with being capable of committing "professional murder."

As the ostensible point of attack in the editorial is the management of the general hospitals, it might be proper for those having control of them to reply for themselves; but a journal like the REPORTER, which represents the interests of the medical profession, ought to defend a member of it from charges which reflect not on him alone, but also on every general hospital surgeon. I might criticise the conduct of the physician whose case is taken up by the *Medical News;* but I will let this go, simply asking: Is it fair to insinuate that many hospital surgeons in Philadelphia are not competent to do an abdominal section, or that one who should refer to them a patient seeming to need this operation would run the risk of becoming party to a professional murder? I do not believe it is; and I think you would do no more than justice if you would give space in the REPORTER to my protest, for myself and for the physicians and surgeons of Philadelphia hospitals, against the impressions conveyed in the *Medical News.* For one, I do not hold my surgical colleagues in such scorn as the editor of the *News* seems to, and I hope you will let the readers of the REPORTER understand that his utterances do not represent the sentiment of the profession in this matter.

Yours truly,
A HOSPITAL PHYSICIAN.

Philadelphia,
July 22, 1890.

[As our correspondent's question seems meant rather for the profession than for us, we leave the answer to it. Our own feeling may be inferred from the publication of his letter.—EDITOR OF THE REPORTER.]

NOTES AND COMMENTS.

Surgical Treatment of Appendicitis.

In a paper read at the last meeting of the Association of American Physicians Dr. Norman Bridge, of Chicago, said: Surgical interference is demanded in certain cases of inflammation in the region under consideration, whether they happen to be called typhlitis, appendicitis, perityphlitis, or by some other name, and the weight of first responsibility is on the physician more than the surgeon.

Surgery is imperative in cases of acute inflammation in the cæcal region, with rather protracted high temperature, and with distinct induration, sensitive to pressure, that does not show positive evidence of subsidence within two days, or three or four days from the beginning. This rule becomes more urgent if the induration continues to increase in size and sensitiveness after two days, or if symptoms of general peritonitis occur, or rapid, weak pulse, or rapid respi-

ration. The vast majority of such cases if left to themselves eventuate in abscess in less than a week, and many before that time lead to mortal peritonitis. Some require operation in less than two days from the beginning of the attack, and most of them have perforation of the appendix as early as the beginning of the symptoms.

I am aware that a few cases here characterized do not require operation and would recover without it, but the number is so small compared to those in the greatest peril, to which it is a crime not to offer the benefit of surgery, and the danger of an antiseptic operation is so slight that they constitute no impeachment of the rule.

Operation is required in cases of undoubted severe acute inflammation in the region of the appendix, even though no particular induration is demonstrable, and in cases of acute localized peritonitis having its origin certainly at the appendix and causing marked constitutional symptoms. In the one situation there is almost certainly such violent inflammation of the appendix as seriously to threaten perforation, with all its dire possibilities; in the other, perforation has occurred and an abscess is probably forming. In the one case there should be laparotomy and extirpation of the appendix; in the other, laparotomy, extirpation of the appendix, if possible, and treatment of the abscess. Probably these two classes cannot be distinguished from each other; many of the symptoms of the one belong to the other. Practically, it is hardly important that they should be distinguished, as both abundantly justify surgical interference; the patients are in vastly less jeopardy with the operation, when carefully made, than without it.

Surgery is especially promptly required in that small class of acute cases in which a large, sensitive induration develops rapidly, with high fever and general evidence of severe constitutional disturbance. Here extensive deposit and large abscess are almost certain to be present, and the danger of early rupture into the peritoneal cavity is considerable, hence the necessity of prompt action.

Surgical aid is demanded in all cases which have advanced to the subacute or chronic stage with distinct induration of considerable size, or with any induration that steadily increases in size for many days, since in most such cases pus is present. These are the cases where sometimes weeks and months after the acute stage a tumor of variable size is found in the iliac region, slightly tender, dull on percussion, and attended by a slight stiffness in walking dependent on pain in flexing the right thigh. Usually in such cases there are frequent exacerbations of moderate suffering in the affected region, often with slight fever, and disabling the patient for a day or two. Unless the tumor is very small pus is almost invariably found in its midst, the quantity varying from a few drachms to many ounces. The patient cannot be safe so long as an abscess is present in the neighborhood of the cæcum, but the danger is in proportion to the size of the abscess. Some portion of the cæcum must generally form a part of the abscess wall, hence the liability of rupture into this canal and into the peritoneal cavity.

Surgery is justifiable in all cases of undoubted chronic appendicitis with occasional exacerbations even if no induration is present. In all such cases we cannot doubt that the patient is in constant danger of perforation of the appendix and mortal peritonitis or perityphlitis — a danger greater than that involved in an antiseptically done laparotomy and extirpation of the little organ entire.

Administration of Creasote in Phthisis.

Dr. Alfred Eichler says, in the *Druggists' Circular*, June, 1890, that creasote is perhaps more prescribed now than at any time since it was first used in medicine. The medical profession the world over began some time ago to again use creasote as a remedy against the ravages of the bacillus tuberculosis, a fact well known to those of our pharmacists who enjoy a large prescription business. It has probably been noticed by many observers that it is quite a difficult matter to disguise the sharp and pungent taste as well as the objectionable smell of creasote effectively, frequently a matter of importance to the physician, it being only too often the case that consumptive patients are very fastidious regarding their medicines on account of the stomach rebelling quickly against nauseous drugs.

A formula much in use is the following, originated by Bouchard, of Paris:

℞	Creasote	13.5 grams
	Tincture of gentian	30.0 grams
	Alcohol	250.0 grams
	Malaga wine sufficient to make	1,000.0 grams

This combines the restorative effect of al-

coholics timulants with the antisepsis of creasote; unfortunately, the taste of creasote is much too prominent in this mixture for it to be agreeable to delicate patients. While it often may be convenient to combine the stimulants necessary to a patient with his medicine proper, I think that in this instance it will be better to leave out of the combination all spirits, as they only seem to diffuse the pungent taste of creasote. This pungency cannot be effaced by the addition of glycerin, bitters or other substances usually combined with liquors.

The ordinary prescription of many physicians, and a very good one at that, because possessing the effects of the two at present acknowledged best remedies for phthisis, consists in giving creasote with pure cod-liver oil, an addition which largely obliterates the taste of creasote, but introduces cod-liver oil, in itself objectionable to many. However, this may be remedied by emulsifying the oil. A better plan still and one which has been found to be quite effective, is to add to the finished emulsion of creasote and cod-liver oil, well flavored with some essence, a quantity of extract of malt, either the officinal or any of the thick extracts in the market, and also to add about two ounces of bitter almond water to each pint of the product. Thus we will have a liquid preparation which can easily be poured in and out of a narrow-mouthed vial. It would be represented by the following prescription:

℞ Creasote . . . . . ½ dr.
Extract of malt . . . . . 4 ozs.
Bitter almond water . . . . . 2 ozs.
Emulsion of cod-liver oil (50 per cent.) 10 ozs.

Dose: One or two tablespoonfuls three times a day, after meals.

This form has been found to be an excellent and pleasant remedy, combining the effects of creasote and cod-liver oil, aiding digestion by means of the malt, and the almond water exerting a slight sedative influence upon the bronchial mucous membrane. The usual flavor for the above emulsion consists of the oils of orange, bitter almond and wintergreen.

Advantage may be taken of the fact that creasote can be completely disguised with oil of peppermint. One drop of creasote mixed with 30 grains of the oleosaccharate of peppermint of the *German Pharmacopœia* can readily be taken. This could be compressed into a pill or tablet. It is preferable, however, to prepare a mass with gum tragacanth and sugar, suitably flavored with oil of peppermint, and then to divide this mass into troches.

Mackenzie's formula for carbolic acid troches (*U. S. Dispensatory*, p. 1542,) may be utilized by substituting creasote for carbolic acid, flavoring the mass with peppermint and dividing the same into troches or tablets of any size.

Capsules of creasote often prove of service; they can be dispensed and made up with any ordinary excipients. Creasote and cod-liver oil can be introduced into gelatin capsules and will keep for a long time. Quite often it will happen, however, that eructations and after-taste will follow their use and defeat the object.

Pills of creasote, when properly prepared, perhaps present the easiest method of administration. An especially good formula is the one combining balsam of tolu with creasote, as follows:

℞ Creasote . . . . . 1 dr.
Balsam of tolu . . . . . 2 drs.
Powdered marshmallow, sufficient.

Soften the balsam of tolu in a mortar with a small quantity of ether until of the consistency of a solid extract; to this add the creasote and finally enough powdered marshmallow root to make a mass; divide this into 60 pills. These may be coated with balsam of tolu after the formula given in the U. S. P. for phosphorus pills, or they can be silver-coated or dispensed in capsules. They will be tasteless and should be preferred to any ready-made coated pill. They agree with consumptive patients especially, and give in addition to creasote the stomachic and expectorant properties of balsam of tolu. In short, they present an excellent mode of administering creasote. The dose is one or two, three times a day.

Numerous other methods of exhibiting creasote could be devised; the above preferred methods, pill, troche or tablet and emulsion, however, will enable almost every one to take this efficient medicament, and will thus prove of service to a most unfortunate class of patients.

Corn Application.

In an article on the treatment of corns, in *Notes on New Remedies*, June, 1890, by Dr. H. M. Whelpley, the most popular "corn-cures" are said to depend upon the action

of salicylic acid. Among the many therapeutic properties of this remedy is its power to disintegrate epithelial tissue. It is usually combined with cannabis Indica. The form Dr. Whelpley has found useful is nine parts of salicylic acid and one part of the extract of cannabis Indica and forty-eight parts of collodion. This is applied to the corn every night with a camel's-hair brush. The foot should be clean before it is applied and the mixture permitted to thoroughly dry before it comes in contact with clothing.

Salicylic acid corn plaster is made by melting six parts of resin and adding five parts of balsam of fir and then stirring in ten parts of salicylic acid as it cools. This can be spread on any suitable medium for a plaster. When used the corn must not be rubbed with the shoe.

Lanolin forms the basis of another salicylic acid plaster and cocaine is added with the idea of making it painless. To form the plaster, mix six drachms of salicylic acid thoroughly with ten drachms of lanolin. Dissolve five grains of hydrochlorate of cocaine in a small qnantity of warm alcohol and mix the solution with one fluid ounce of creasote. Mix one-half ounce of melted white wax with one-half ounce of vaseline and add the creasote solution. To this add the cocaine solution and mix.

The following is given by the drug journals as useful:

℞ Yellow wax . . . . . one ounce
Venice turpentine . . . . . two drachms
Acetate of copper . . . . . half a drachm

The wax and turpentine are to be melted and mixed, and the copper to be then stirred in, so as to make a plaster.

Lupus of the Larynx.

A case of lupus of the larynx has recently occurred in Professor Rydygier's wards in Cracow, and an account of it is given by Dr. Langie in the *Przeglad Lekarski*. The patient was a laboring man, aged thirty-two. He had suffered from a slight cough, hoarseness and difficulty in breathing for a couple of years, these symptoms having increased so much during the preceding two months that he had been obliged to seek medical advice. Externally, there was nothing to be detected, except that the subclavian lymphatic glands were much enlarged. On examination with the laryngoscope a gray growth could be seen, with a rough, granular surface, extending from the base of the epiglottis into the right half of the larynx and involving the right vocal cord. On the left half of the larynx discrete tubercles, of the size of a millet seed, could be seen, and the rima glottidis was much narrowed. In consequence of the extreme dyspnœa from which the patient was suffering laryngotomy was performed, and then, as the growth appeared to be of a malignant character, the larynx was excised. Four months later the patient was fitted with a Bruns' artificial larynx, which proved quite satisfactory. The microscopic examination of the tumor showed it to be lupus.—*Lancet*, June 21, 1890.

Rupture of the Vagina.

The *Centrablatt für Gynäkologie*, No. 22, 1890, contains an interesting article by Dr. Himmelfarb, on rupture of the vagina; which is referred to in the *British Medical Journal*, June 28, 1890. Dr. Himmelfarb has carefully searched the literature of the subject, and discusses cases in his own experience. The great majority of cases occur, no doubt, in association with labor. The remainder appear less frequently due to the introduction of foreign bodies than to violent coitus. The former is the alleged cause in some cases really due to the latter. Rupture of the vagina in very old subjects during connection is a well-recognized injury. Dr. Himmelfarb describes a case, and a specimen illustrating the injury in age is preserved in the museum of St. George's Hospital. A similar accident in young subjects is hard to understand. Zeiss and Frank have recorded cases. Dr. Himmelfarb relates another where, in a healthy woman, aged 24, parametritis, peritonitis, and fatal pyemia followed coitus. The posterior wall of the vagina was found to be torn through. Connection had frequently taken place after the first occasion, when the pain was very severe, notwithstanding the suffering which it caused. Dr. Himmelfarb thinks that rupture of the vagina is probably more frequent than supposed in cases of sudden pain with no sign of injury about the external parts, and in such cases coitus is the true cause of the rupture. Dr. Frank, of Prague, described two cases before the German Medical Association of that city last autumn. In the first, the patient was 32 years of age; she recovered from the

injury, which was certainly inflicted during coitus. In the second, there was vagina duplex; the right half ended in a blind sac, the left communicated with the uterus. The hymen on the right side and the septum were lacerated in coitus.

In the REPORTER, March 22, 1890, Dr. Herbert A. Starkey, of Philadelphia, reported a case of complete laceration of the vagina, resulting in death. The rupture was caused by the forcible introduction of a man's hand into the vagina, in a fit of drunken and erotic passion. In that place it was stated that Taylor, in his work on Medical Jurisprudence, speaks of a girl eight years old, who was raped by an adult, and who lived for six days after the injury. The subject is one of considerable medico-legal interest.

A Long Fast.

The daily papers of July 16 reported that a man named John Roth had died July 14, at the County Asylum, Galena, Ill., having passed his sixtieth day of total abstinence from food of any kind.

The man was said to have been attacked by progressive paralysis two months ago, which incapacitated him from work, and soon made it impossible for him to eat. After a week of fasting he was brought to the County Asylum on May 23, and there lingered fifty-three days without food.

In reply to inquiries from the REPORTER as to the correctness of these statements, Dr. Hugh F. Gunn writes that they are substantially true; but that the man could take liquid or solid food if inclined to do so. He was in a state of stupor, from which he could be aroused, however, and at no time was any food administered by means of mechanical appliances. The man occasionally swallowed a little water. The account of the case rests upon the assertions of the Superintendent and the nurse at the Asylum. It is not as accurate and exact as might be wished, but indicates a long resistance to the effects of starvation.

Methylene Blue as an Analgesic.

The *Chemist and Druggist*, June 21, 1890, says: Since with the introduction of coloring agents as antiseptics what may be called a new step was taken, or rather, perhaps, a new source indicated, for remedial agents, we may expect to soon find other substances obtained from the same class and brought forward as medicaments, the value of which may exceed that of the first found. We have now to note methylene blue which is claimed to possess analgesic properties. Those who have a great admiration for blue blood should seize the present opportunity of obtaining it cheaply since, besides relieving them of muscular or articular rheumatic pains it passes so rapidly into and through the circulatory system that an hour at the latest after the dose the urine is colored pale green, then bluish-green, and after four hours a fine aristocratic deep blue.

As is always the case with remedies recommended by the discoverer, no unpleasant secondary effects were observed even after continued use. Drs. Ehrlich and Leppmann, who investigated the medicinal properties of the substance, tried at first to administer it as a hypodermic injection, but without success, as they could not get a sufficiently strong solution.

Alvarenga Prize Awarded.

The Alvarenga Prize of the College of Physicians of Philadelphia, being the income of the bequest of the late Señor Alvarenga, of Lisbon, has been awarded to Dr. R. W. Philip, of Victoria Dispensary, Edinburgh, Scotland, for his essay on Pulmonary Tuberculosis, which will be published by the College.

Deceased Physicians of Virginia.

Dr. F. Horner, Editor of the *Virginia Medical Advance*, proposes in that journal, May, 1890, to present a brief sketch of lives of deceased physicians of Virginia. All Fellows of the N. E. Virginia Medical Society as well as the State Medical Society will confer a boon on the profession by contributing such papers to the *Advance*. If any there be unable to prepare sketches for publication in the *Advance* themselves will forward data that may be accessible to them to Dr. F. Horner, Marshall, Fauquier County, Va., that information will be gladly acknowledged and appreciated. The history of eminent medical men of colonial times as well as of the present century would prove interesting reading. Physicians of the former period were graduated from the Universities of London and Edinburgh and with

those of later times largely contributed to collegiate institutions in many States. Such facts ought to be preserved as an incentive to young members of the profession.

NEWS.

—Dr. A. Hamilton Deekens has removed to 1638 Franklin Street, Philadelphia.

—The New Jersey State Dental Society has just held its twentieth annual meeting at Asbury Park, N. J.

—Dr. G. Howard Beck has been appointed District Police Surgeon for the Ninth District, Philadelphia.

—Miss Nancy Goodrich died in Bloomfield, Connecticut, on July 13, of heart disease. She is said to have been 110 years old.

—Reports from Madrid, July 15, state that in the last two months there had been 445 cases of cholera in Spain. Of these 251 had been fatal.

—In the case of Dr. Pierce, Mayor of Hoopeston, Ill., charged with illegal sale of liquor, as mentioned in the REPORTER, July 12, the jury disagreed.

—It was reported from St. Petersburg, July 18, that cholerine was prevalent in Kowno and Vienna, and was spreading. Many fatal cases of the disease were reported.

—Dr. R. Stansbury Sutton, of Pittsburgh, has just completed a seventh and most successful year at his private hospital for women. He treated there during the year just closed eighty-five patients.

—Dr. H. W. Mitchell, of New York, one of the out-door physicians to Bellevue Hospital, while bathing at Asbury Park, July 18, was robbed of his gold watch and chain and a diamond ring valued at $400.

—W. C. Hollopeter, M. D., has been elected Lecturer on Diseases of Children; and Ernest B. Sangree, M. D., Director of the Histological Laboratory in the Medico-Chirurgical College of Philadelphia.

—Beginning with the session 1891–1892, attendance upon three regular courses of lectures will be made obligatory as a requisite to graduation at the Western Pennsylvania Medical College, Pittsburgh, Pa.

—What was said to be a genuine case of Asiatic cholera was reported from Atchison, Kansas, July 18. The patient died within twenty-four hours. The newspapers say that two physicians pronounced the case undoubtedly Asiatic cholera.

—The doctors and the druggists of south-eastern New York recently had a picnic together at Orange Lake, N. Y., and Dr. J. H. Doughty, of Matteawan, read an original poem full of allusions to the work of both classes of his hearers.

—Paris gossips declare that one of the physicians who was most conspicuous in ridiculing Dr. Brown-Séquard's "elixir" has just been cured of paralysis by its administration, and is now as zealous an advocate of Séquard as he was previously a scoffer.

—Dr. John E. Ensell, a graduate of the College of Physicians and Surgeons of New York in 1872, attempted suicide in New York, July 15, by shooting himself. The wounds were fatal. It is stated that of late he has been betting on horse races and had lost heavily.

—It was reported from San Antonio, Texas, July 17, that Mr. Warren Garnet, who had returned from the State of Coahuila, Mexico, said that the deaths at Coahuila from small-pox averaged 400 for the last three months, and new cases were reported daily.

—Dr. Edward G. O'Malley, of Wilkesbarre, Pa., a graduate of the University of the City of New York, in 1881, was killed at Aspen, Colorado, July 19, by being thrown from a horse. He was at one time Coroner of Luzerne County, and was thirty-three years old.

—Dr. James D. Strawbridge, a graduate of the Jefferson Medical College, died suddenly at his home in Danville, Pa., July 19, at the age of 66 years. He served in the war for the Union, was medical director of the Eighteenth Army Corps, and spent three months in Libby prison.

—Passengers arriving in New York on the steamer Orbisonia, from Havana, July 16, stated that yellow fever of a violent type was raging in that city. They said that fifty cases a day were reported, and foreigners were leaving as fast as they could get away. The weather was very hot.

—The increase of insanity in Berlin has made it necessary that a new public lunatic asylum should be established. The building, which is to accommodate 1,000 patients, will be situated in the easterly suburb of Lichtenberg. The city of Berlin already maintains an asylum with about 1,200 inmates at Dalldorf.

—Dr. Joseph Taylor, a cousin of the late Bayard Taylor, of Kennet Square, and

of Dr. J. Howard Taylor, of Philadelphia, died suddenly at Atlantic City, N. J., July 18. He had been ill with what seemed to be obstruction of the bowels for five days; but had no idea he was so near his end. Dr. Taylor was a retired army surgeon.

—It was recently announced from Boston that the scheme whereby all the soda water and beer apparatus interests in the United States were to be amalgamated into a trust and sold to English capitalists has fallen through, the broker who was engineering the deal having cabled from London his failure to organize the necessary combination there.

—Dr. R. C. Word, a prominent physician of Georgia, died July 20. He occupied the position of Professor of Physiology in the Medical and Dental Departments of the Southern Medical College in Atlanta, and was for many years associate editor of the *Southern Medical Record*. He was graduated at the University of the City of New York in 1846.

—Water was allowed to flow through the new New York aqueduct July 15. The water will be allowed to flow through for six weeks, when it will have to be shut off to complete the work. It is expected that the three city reservoirs will be filled. Meantime one gate admitting the water to the houses in the city will be left open. Twenty-five million gallons of water an hour are flowing through the aqueduct.

—The "Nurses' Beneficial Association," for nurses who are registered at the Directory of the College of Physicians, Philadelphia, was organized in June, 1890. There are now nearly 200 members of the association. Its object is to pay sick benefits while a nurse is disabled by reason of illness, and a death benefit to defray funeral and other expenses in case of death. It is proposed to raise $5,000 to endow a bed in some hospital to be used for any member of the association needing it.

—A letter was received by the Board of Health of Philadelphia, July 17, from the United States Consul at Gibraltar, saying that the British steamer Sylvia, from Marbella for Philadelphia, left Gibraltar without having her bill of health from the United States Consular agent at Marbella endorsed at Gibraltar. The Consul reported good health at Gibraltar and immediate vicinity, but quarantine, he said, continued to rule at that post against arrivals from Spanish ports east of Gibraltar.

—It is reported that an extraordinary child was recently found by a correspondent of the *Lancet* in West Cornwall, Great Britain. He is now five years and six months old and is of the following dimensions: Height, four feet; weight, 117 pounds; circumference of abdomen, 42½ inches; waist, 37½ inches; chest, 37 inches; neck, 14 inches; head, 22½ inches; thigh, 23 inches; calf, 15½ inches; arm, 11¼ inches; forearm, 16½ inches. He is very healthy, eats all day long, if he can get it, and is fairly intelligent. The parents and their other children are of ordinary size.

OBITUARY.

H. H. LONGSTREET, M. D.

Dr. Henry H. Longstreet, one of the oldest and most prominent physicians in Burlington county, died at his home at Bordentown, N. J., July 6, 1890, after a brief illness. He had been in failing health for more than a year but had been confined to his home only a few days prior to his death. He was born in Monmouth county, N. J., January 11, 1819. His early education was obtained at Lenox Academy, Massachusetts. He began the study of medicine under the tutelage of Dr. Robert Cook, of Holmdel, and Prof. J. B. Beck, of New York City. In 1842 he was graduated from the College of Physicians and Surgeons of New York, and at once began the practice of his profession in Bordentown, N. J. Possessed of a vigorous physique, indomitable perseverance and social qualities of a rare order, he rapidly grew in public favor and esteem and made for himself a name and position that stood unchallenged for nearly half a century. Identified as he had been for many years with all important movements connected with the progress of the city, his loss will be felt in the community as that of few individuals. During the past two years failing health rendered it necessary for him to practically withdraw from the active duties of his profession, his partner, Dr. Wm. H. Shipps, for many years his professional associate, succeeding to his practice.

At the time of Dr. Longstreet's death he was a member of the American Medical Association and other medical societies, as well as a director of the Bordentown Banking Co. and of the Bordentown Water Co., and a member of the Board of Health. S.

MEDICAL AND SURGICAL REPORTER

No. 1744. PHILADELPHIA, AUGUST 2, 1890. Vol. LXIII.—No. 5.

Clinical Lecture.

HYDROCEPHALUS.—CEPHALHEMATOMA.—PRESSURE ŒDEMA IN PREGNANCY.—OCCIPITO-POSTERIOR POSITION; INSTRUMENTAL DELIVERY.[1]

BY EDWARD P. DAVIS, M. D.,

PROFESSOR OF OBSTETRICS AND DISEASES OF CHILDREN IN THE PHILADELPHIA POLYCLINIC, VISITING OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL, ETC.

Hydrocephalus.

Gentlemen: This morning I wish to call your attention to this child, which presents an interesting condition. It is nine months of age, and was delivered after a normal labor, an easy parturition. It was breast-fed until it was six months old; and this was supplemented by the use of good cow's milk. It appeared to be a remarkably healthy child until two months ago, at which time the mother noticed that its head was increasing in size. The question which immediately arises is: What is the pathological condition which is going on in this child's head? Is this a case of hydrocephalus or of rickets? We are not always able thus early to tell whether one or both of these conditions are present. There is one point in this case which appears to indicate a rachitic condition, and that is the peculiar narrowing of the head at the temporal region. While we look at the veins of the head, we notice a distinct enlargement all over the head. There is also a bulging of the vertex, together with an enlargement of the skull above it; which, however, is not excessive. There are times, as in this instance, when a positive diagnosis between rickets and hydrocephalus cannot be made. The best way by which we could determine this point would be to take the measurements of the head from time to time, and note the progressive rate of increase in size; these measurements should be made in the circumference just back of the ears, and also in the antero-posterior diameter.

There is another point of distinction: in marked hydrocephalus there is always a peculiar appearance of the eyes, when, owing to the bulging of the forehead and the displacement of the orbital walls, the position of the eye is altered, and the sclera shows more extensively than it should, giving a staring appearance to the eye. This appearance is not yet present in this case. By examining this child's skeleton at various points, we can ascertain if there are any other signs of rickets here; as the child cries, the blue veins to which I have called your attention show quite distinctly. Examining the breast, we see an eruption upon it which is commonly seen on young children, especially if the weather is warm and the child be warmly clothed. The articulations of the ribs are normal, and there is no enlargement of the joints at any point. This, therefore, goes to confirm our diagnosis of an early stage of hydrocephalus.

Hydrocephalus is commonly said to be of two kinds: the internal and the external. By hydrocephalus we mean an accumulation of fluid within the cranium. This may be between the dura and the skull—external hydrocephalus—but is generally between the membranes and the brain substance—internal hydrocephalus. The external variety probably never exists as such, but is always secondary to some other condition. Internal hydrocephalus is due to a congenital malformation of some portion of the brain substance, or it may be due to tubercular meningitis, or to a tubercular tumor within the brain. The head at times may increase in size at the rate of three-fourths of an inch per day.

[1] Delivered at the Philadelphia Hospital.

The symptoms of this condition are an increase in the size of the head and a gradual decrease in the intellect. Such children generally become idiotic, and as a rule die in convulsions, which are produced by the pressure of the fluid upon the fourth ventricle. During the last winter I showed you the head of a hydrocephalic child which beautifully exhibited the pathology of this condition. There were one or two quarts of fluid in the brain, the ventricles were large cysts and the brain substance and membranes were flattened out as thin as a sheet of heavy paper.

Now as to the treatment of this condition. Ordinarily these children do not live to be more than two or three years of age; there are cases recorded, however, where they have reached the age of six, eight or ten years, the disease having been arrested in its progress. As soon as the disease is discovered there is no objection to removing the fluid. An aspirating needle, rendered aseptic, should be introduced into one of the lateral angles of the anterior fontanelle and the fluid may be thus evacuated. Following this we may strap the head with adhesive plaster, observing, however, great caution, because the scalp is often so tender that the straps, if improperly applied, may give rise to soreness and ulceration, and the child's condition be aggravated. The use of an elastic bandage is much preferable to the use of adhesive plaster. If, however, the plaster be used, it should be removed every two or three days and the parts powdered with a drying and antiseptic powder, such as boric acid. Iodide of potassium, counter-irritation to the back of the head and neck by blisters, and setons have been tried, but with poor success. I am not aware that salines in small doses have been used in these cases, but possibly this would be a rational method of treatment.

There may be a condition of intra-uterine rickets with malformation of the skull and pressure upon the brain, resulting in hydrocephalus. In extreme cases the weight of the head becomes so disproportionate to the size of the body that the head cannot be supported by the child. Death usually soon ensues in a condition of coma with convulsions from pressure upon the brain substance surrounding the fourth ventricle. Syphilis may complicate hydrocephalus, and occasionally brain tumor may produce it.

A few words as to the future treatment of hydrocephalus in these days of brain surgery. It is perfectly possible to drain the ventricles of the adult brain. About eight years ago a policeman was assaulted by roughs who injured his head so severely that intra-ventricular suppuration ensued; he was operated upon and the pus withdrawn successfully. Whether or not suppuration recurred and he subsequently died I do not know. Now, if we can do this in the adult head, we have no reason to doubt that we can do the same in a child.

Cephalhematoma.

The next case is one also of head trouble. The history is that the child was admitted on Monday of this week three days old. After birth a tumor was noticed on its head. The mother is anemic and with a tendency to post-partum hemorrhage. Examining the head I find here a tumor over the left occipito-parietal juncture, and as I tap it with my finger, you will observe a gentle fluctuation. It seems to be a cephalhematoma; but we must first be sure that it is not a meningocele. By gentle palpation I can recognize the skull under the tumor; the tumor is, therefore, outside of the bony substance of the head. It may be a simple scalp tumor, but the probabilities are that it is the result of an injury to the head causing an effusion of blood beneath the scalp, with an injury of the membrane over the skull. This is not a very rare occurrence. Last winter I showed you a case of double hematoma, which is rare. The diagnosis of this condition is the main point of interest. Were it a meningocele, it would show the pulsation of the brain substance; this, however, is not present.

As regards treatment: compression and nothing else is required. Do not evacuate such tumors, but make gentle pressure on the part. If the temperature should rise and symptoms of suppuration ensue, then open in two places, wash out with a dilute antiseptic fluid and make compression. Ordinarily, however, the tumor will be absorbed in the course of two weeks.

Pressure Œdema in Pregnancy.

The next case is that of a woman almost at term who presents some interesting symptoms. She is a healthy, strong-looking woman, with a large, well-developed skeleton. When she is on her feet she is exceedingly annoyed by a swelling of her lower extremities. This differs from the usual

cases of œdema met with in practice, in the fact that one leg swells more than the other: it is an unilateral œdema. The color of the patient is that of a fair degree of health. Her family history is negative so far as any disease is concerned; her maternal grandparents both died of dropsy. In November, 1889, her right foot began to swell; and this continued, with no other trouble, until two weeks ago, when the left foot began to swell also. At the same time the general circulation became disturbed, as evinced by palpitation of the heart and a soft systolic murmur heard over the second costal cartilage on the right side. The specific gravity of her urine ranges from 1.020 to 1.030. In the last twenty-four hours she has passed eighty ounces of urine and in the previous twenty-four hours she passed fifty ounces. This array of symptoms gives us an interesting subject for study.

The position of the uterus during the last weeks of pregnancy is usually that of right lateral obliquity. If we bear this fact in mind, we may arrive at a rational conclusion as to the cause of the swelling of this woman's limbs. Her right leg, which was intensely swollen, has almost entirely recovered under rest. Therefore, the dropsy was a transient condition, due not to organic disease, but to some mechanical interference with the circulation. Examining the abdomen as the patient lies in the recumbent position, we see the usual appearance of the abdomen of advanced pregnancy. The fundus of the uterus is slightly above the umbilicus. The back of the child is to the right, the smaller fetal parts to the left side. The appearance of the abdomen is that of a large tumor upon the right side. The so-called obliquity of the uterus is not so apparent as when the woman is in the semi-recumbent position, but the preponderance of weight is distinctly upon the right side. The increase in the size of the liver in the last part of pregnancy is a distinct factor in influencing the fetus to take its position on the left side of the abdomen, and also in influencing the obliquity of the uterus. It takes up some of the room which the uterus tries to fill, and thus favors the turning of the fetus into the left occipito-anterior position. In this case, however, matters are reversed, the liver is enlarged and the child to the right. The uterus always inclines to one side or the other; and here we have an excessive right lateral obliquity of that organ, probably due to the roominess of the pelvis. As a result of this change, there is an increased pressure upon the venous trunks on this side. This can be avoided by maintaining the recumbent position.

Now, as to the condition of the heart in this case. There is no symptom in the case which would lead us to ascribe any importance to the systolic murmur which is heard. The kidneys are doing their work; and continued rest in the recumbent position, together with proper attention to the condition of the bowels, will be all that will be necessary for the patient's relief. There are other things to be said about the case which are of equal and possibly of greater interest. When labor comes on, we may have some very interesting complications. If the membranes should rupture while the patient was in a standing or semi-recumbent position, a lateral presentation may occur, caused by the rapid discharge of the amniotic fluid. Or, again, we may have quite a precipitate labor; or we might have a face presentation. Occasionally in a breech presentation, in such a case as this, we might have the complication of the arms extended along the head, or the occurrence of the extension of the head at delivery.

Occipito-Posterior Position.

I wish to speak now of a case which recently occurred in the maternity ward. The patient was a primipara, 26 years old. On her admission into the ward the os was found to be dilated to the size of a quarter of a dollar. It was a difficult matter to reach the os, which was directed far back towards the sacrum. On abdominal palpation the back of the fetus could not be distinctly outlined; but the heart could be heard on the right side. The pains, which were weak, were made more forcible by the administration of sixteen grains of quinine; the membranes were punctured, and the head descended to the pelvic floor. Up to this time the diagnosis of the position had not been made. I had examined the woman, and could only make out an occipital presentation. I could feel a suture—probably the saggital, which was not in its normal position. At this point the diagnosis of a right occipito-posterior position was made. Efforts were made to cause rotation anteriorly by the introduction of the hand, with final success, although it was not known at what precise moment rotation occurred. Even then the head could not be delivered until

the forceps was applied. The cause of the dystochia was that the head presented by the occiput instead of the vertex. The perineum was torn to the bowel; and three sets of stitches—rectal, vaginal and perineal—were inserted.

The case is of interest as being one of occipito-posterior position. If we examine the records of maternity hospitals, we shall find that there are more of these than we would expect. I have collected 170 or 180 cases of occipito-posterior position occurring in over forty years in this hospital. The points of interest in this case were first the difficulty in diagnosis. In such a case the only thing to do was to watch and wait, after the administration of a tonic such as quinine. When rotation did not seem to be possible, then the only instrument advisable was used, and that was the aseptic hand. In such cases we should administer chloroform, introduce our hand, and make our diagnosis. In an occipito-posterior position, either the trunk is situated abnormally in the pelvis, or it is situated normally, and—as occurred here—the head rotates from one-quarter to one-half of a circle. In this case the forceps was indicated for the safety of both mother and child. The laceration which occurred was that which you will get in most cases of primiparæ where such an abnormality exists. The dilating and softening influence of the head on the perineum is lacking, and a tear will result.

COMMUNICATIONS.

BLEEDING FOR PNEUMONIA.

LETTERS BY DR. W. STUMP FORWOOD,
DARLINGTON, MD.,
AND
DR. JOHN R. QUINAN,
BALTIMORE, MD.

[The following letters are a valuable contribution to the literature of the subject of the treatment of pneumonia which was discussed with so much force by Dr. Hiram Corson, in his series of papers in the MEDICAL AND SURGICAL REPORTER, March 22 and 29, April 19. May 17.]

DR. FORWOOD writes: Having read with deep interest, and full concurrence, the four papers recently published in the REPORTER on pneumonia and its treatment, from the pen of the distinguished professional veteran, Dr. Hiram Corson, of Montgomery Co., Pa., I felt induced to send a copy of the same to my friend, Dr. John R. Quinan, of Baltimore, knowing him to be a physician of wide experience in the treatment of disease, and one who had been accustomed to the free use of the lancet in such cases as in his judgment it appeared to require it. At the same time I requested him to make such remarks upon Dr. Corson's papers as were in full accordance with his best judgment; and in such a form as might be presented, if desired, to the readers of the MEDICAL AND SURGICAL REPORTER.

Dr. Quinan's views on the subject, more pointed and confirmatory of Dr. Corson's conception of the pathology and treatment of the disease than I expected, are herewith appended, in a letter received from him by to-day's mail; and, with his permission, his remarks are now offered, with this explanatory preface, for publication in the columns of your much-esteemed journal.

DR. QUINAN writes: Allow me to thank you for the very great pleasure you have afforded me in reading Dr. Hiram Corson's article on pneumonia and its treatment. The author is, I am told, a distinguished practitioner of Montgomery Co., Pa., and a veteran of 80 years—but it is evident from the vigor and closeness of his reasoning that his mental vision "is not dim nor its natural force abated." As I am on the eve of meeting a consultation out of town, I am too hurried to do more than make a few cursory remarks that the paper suggests. To do it full justice would require more time than I can now command.

Dr. Corson's position is: 1, That pneumonia is a local inflammation, and not, as asserted by Dr. E. F. Wells, and others, a "pneumonic fever," *i. e.*, "a general disease with a local manifestation in the lungs;" 2, That, for the acute, sthenic form of this disease, attended with profound congestion and speedy inflammation, blood-letting promptly and judiciously used, in the first or second stages, offers the best and most efficient remedy. He fortifies both points by a large array of eminent authorities strengthened by his own extended experience; and if it could give the slightest weight to his argument, I might add my own unhesitating endorsement of the soundness of his views and conclusions, derived as mine are from an acquaintance with the disease in question during forty-six years of active practice.

But let us examine his views in more detail. It is, he asserts, a local disease, differing in nothing but its seat and gravity from other phlegmasiæ. It sets in suddenly with a chill, after some undue exposure, and exhibits no prodromata, as do general or idiopathic fevers. It is often confined to one lung, and as frequently to one lobe of that lung; and further, one attack does not procure immunity from another—as we should certainly expect if it were a specific fever. But, say those opposed to its being considered a local disease, it runs a definite and limited course, and hence we must conclude that it is a specific, general fever. Granting the fact that pneumonia does run a definite and limited course, marked by successive stages of congestion, exudation, resolution, or consolidation and suppuration—in what does it differ in this respect from the course of inflammation in any other vascular organ, such as the liver, brain, kidney or spleen?

Their reasoning is false by proving too much, as it would obliterate the whole catalogue of phlegmasiæ from our nosology. In the microbe mania that affects the pathology of the present day it is a fashionable fad to ascribe every disease to a parasitic source, and since Friedländer discovered (as he claims) a pneumococcus in this disease, it was at once assumed that the disease had this specific origin. But the necessary proof is wanting to show that the pneumococcus has any causal relation to the disease, and I think we may safely dismiss this point by referring Dr. Wells and those who maintain that pneumonia is a general fever to the report of "The English Collective Investigation Committee on Pneumonia," based on a study of 350 cases, which appeared in the *British Medical Journal*, Dec. 1, 1883. It says, "We think the evidence before us is insufficient to support the doctrine that pneumonia is a specific fever, whose chief local manifestation is in the lung. Like all respiratory diseases we find it prevailing in certain states of the weather. The great regulator of its frequency is season. It confers no protection on the individual, but rather increased liability to future attacks—has no direct association with any specific disease; epidemic pneumonia is in part explained by atmospheric conditions and in part by other agencies prejudicial to health." Remember these inferences were drawn from answers to inquiries extended over the whole civilized globe, and of course include every possible aspect of the disease among all ages, colors, sexes and conditions.

Admitting then that we have in pneumonia a local inflammation to deal with, how can we best combat it? Since the dawn of historic medicine, there has been but one reply: venesection, fully, promptly and judiciously used. But of late men of science so-called have elaborated the theory that the tendency of the disease, in the majority of cases, is towards recovery, and therefore that it is best left alone! Admitting, for the sake of argument, that some patients do struggle through the attack unaided by our art, how is the practical physician to decide that the case before him is to prove one of the fortunate few who recover, or one of the unfortunate many who succumb to the disease? These expectants do not tell us; and to follow their teaching is simply to reduce the rôle of the medical attendant to a "meditation on death." Another class advises the use of stimulants (oil to extinguish fire!), as if the heart was not sufficiently over-excited already! Still another class would use digitalis, a heart tonic, leaving out of consideration the fact that the *vis a tergo* is too great already for the safety of the lung; while a fourth class would have us employ veratria, aconite and other sedatives, which are often so uncertain and slow in their action as to either kill the patient by their violence or let him die by their delay in taking effect.

The ideal therapeutic agent needed in acute croupous pneumonia is one that will lessen the *vis a tergo*, and at the same time remove the blood on the venous side, to enable the vessels to empty themselves and excite a certain amount of *vis a fronte* which results not only in a temporary relief of the arterial stasis but in an increased rapidity of the current and a lessened force of circulation. Both these results are secured by blood-letting and by blood-letting alone. Those who are sceptical about this explanation would do well to read the convincing experiments of Gensmer on the antiphlogestic effect of blood-letting in the *Centralblatt f. die Med. Wissenchaften*, April 1, 1882. He is dealing, it is true, with local, but it is equally applicable to general depletion, as the essential pathological conditions are the same.

But whatever theory we may adopt as to the *modus operandi* of this remedy, the test of its efficacy is in the experience of the bed-side. Trial there is the *experimentum*

crucis of all our remedies; the effect of their use on the sick decides their value. Whether or not science can satisfactorily explain their mode of action is a secondary consideration. Self-evident as it may seem, it is too often forgotten that our art is founded on experience alone. If science can arrange the facts and deduce from them some universal law for our guidance, well and good; but she cannot supply the facts; these are to be derived from observation and experience; and often the art of medicine and common sense flatly contradict the assumptions of what is advanced as the science of medicine and which is solemnly and dogmatically announced from the professional chair by men who have derived their knowledge of remedies in a physiological laboratory from experiments on frogs—or elaborated them from their fancy.

This applies with peculiar force to the use of blood-letting in pneumonia. I venture to say no one who ever tried it (and none other can decide) in the congestive stage of this grave disease, and witnessed its benefit, could be induced to resort to any other remedy. My own experience confirms all that Dr. Corson claims for it. I use it in every case of sthenic pneumonia in its early stages, and always with prompt relief, sometimes cutting short the attack *in toto*. My case-book shows that, under this treatment, the mortality was one in seventeen cases. On one occasion, while riding, I was stopped to see a colored man who had been seized with a violent chill in the field, where he was still lying. On reaching him, I found a young, athletic man, in the first, or congestive stage of pneumonia. Knowing the value of time, I at once tied his arm and bled him until the pulse softened and the dyspnœa ceased. He was then carried to his house, and on visiting him that evening I found him completely convalescent; and in a few days he was at work in the field. Of course, I was not always fortunate enough to catch the disease in the forming stage, as in this case, and to *jugulate* it as I did; but I mention it to show what a timely bleeding will effect. I was in the habit of instituting one full bleeding as early as possible, following it up with tartar emetic in minute doses, together with calomel and opium, the application of poultices to the chest, and, in the latter stages, blisters, with all the nourishment of easy digestion that the patient would bear. In the latter stages I employed muriate of ammonia, combined with tincture of opium and the addition of minute doses of tartar emetic, the amount of the latter proportioned to the febrile movement.

Dr. Corson adduces the authority of men of the largest clinical experience in favor of the lancet in this disease, men who were not to be misled into trifling with the life of the patient by the *laissez faire* plan, or by any other agent but the lancet. Dr. John L. Atlee, in his able address before the American Medical Association, June 3, 1883, said: "I feel well assured that the almost total disuse of the lancet has cost many valuable lives. From a very large experience in its use, I am satisfied—fully satisfied—that if we depended more on the early use of the lancet in the congestive and inflammatory states of many diseases, our practice would be more successful than it now is." Again, the late Dr. Richard McSherry, a man of very extensive acquaintance with disease, in military, naval and private practice, and one thoroughly fitted to estimate the relative value of remedies in this and all other diseases, says, in an article which appeared in the *Medical News*, September 3, 1883: "Is blood-letting a proper remedy in acute inflammation? Aye and nay come down upon us from remote ages. In the face of an appalling opposition, *I believe blood-letting to be the most potent if not the safest of antiphlogistics.*" (Italics mine.) Like all potent remedies, making prompt and decided impressions, it is, when in fashion, liable to great abuse; but, *abusus non tollit usum*; and blood-letting is a remedy too much neglected. It happened that among our pupils were two very intelligent medical cadets then serving in army hospitals near the city. When examining these young men for degrees, I took occasion to examine on pneumonia, and questioned both as to what they had read and what they had seen. I will call them Mr. M. and Mr. K. Mr. M. had seen a great many cases of pneumonia. When I asked him what was the treatment, he replied: "Generally stimulating." When I asked the result, he said the mortality was large. When I asked further: "How large? Fifty per cent. more or less, of the patients?" the answer was: "Much more." My expression must have been one of surprise; for the candidate immediately added: "Professor, a great many of the cases came into the hospital far advanced in the disease and some actually moribund." I then said that stimulation

was probably the best your surgeons could do for them; but, had any of these men any marks about them to show general or local abstraction of blood? The gentleman replied: "They had not."

When Mr. K. came up I took him over the same ground. He had seen a great many cases of pneumonia in hospitals, about one-half of which proved fatal. The treatment was stimulating. Upon inquiring if any of the patients had been bled before or after coming under his observation, he said: "No, I never saw a man bled in my life." When Mr. K. (now Dr. J. H. Kidder, U. S. N.), after passing a brilliant examination before the Navy Board, called to pay me a friendly visit, I referred to his hospital experience and asked how the surgeons explained the large mortality in pneumonia. His answer was that they supposed the lost cases had not been sufficiently stimulated. "And I remember," said I, "my young friend, when it would have been said: The men died *because not sufficiently depleted in the early stages.*"

I mentioned these facts, some time after their occurrence, to a practitioner in this city who had been employed in one of the hospitals in question. The gentleman said that he remembered distinctly two cases of recovery, in both of which the patients had been freely cupped! Are not such facts worthy of note as offsets to the statements of Bennett and Todd that when pneumonia proved fatal, it was rather due to the treatment (by blood-letting) than to the disease? Drs. Bennett and Todd were both very able men, but they were as liable to mistakes as the rest of us.

But I have made this letter too long, I fear, for your patience, and must close with again assuring you that I believe Dr. Corson's views in regard to this disease and its treatment are in full accordance with common sense, sound theory and well-attested experience, and I endorse them to the letter.

NAPHTHALIN MAY AFFECT THE EYES in an extraordinary manner, as demonstrated by Dr. Kolinski, in Von Græfe's *Archive*, through its property of deleteriously affecting the nutritive property of blood. The eye being a highly vascular organ, its structure readily undergoes degeneration. The effects of the administration of naphthalin are ecchymosis, white patches in the retina, cloudiness in the lens and crystals in the vitreous humor.

ETIOLOGY OF CHOLERA INFANTUM.

BY GEO. TROUP MAXWELL, M. D.,
JACKSONVILLE, FLA.

In an Editorial in the MEDICAL AND SURGICAL REPORTER, July 12, 1890, on the "Etiology of Cholera Infantum," this sentence occurs: "Passing by such predisposing causes as age, constitutional feebleness, bad hygienic surroundings, impure air and water, dentition, etc., there remain two causative factors in the production of cholera infantum which deserve careful study, namely, high temperature and the food supply." The baneful effect of high temperature is inferred by the writer, because certain authors of celebrity, named, have "shown that, taking the average of a large number of years, the mortality from diarrhœa increases rapidly from May to July, and then steadily decreases." And "the fact that, according to statistics collected by Holt, of nineteen hundred and forty-three fatal cases, only sixty-one, or about three per cent., had the breast exclusively, is conclusive evidence that high temperature, in itself, is not the most important of the two causes under discussion, and indicate that the heat is harmful chiefly by bringing about certain changes in the food supply of hand-fed children."

As I seriously doubt the correctness of the assumption that there is the relation of cause and effect between high temperature and the food supply, and cholera infantum, I would like to have an opportunity to give some reasons for dissenting from the conclusions which seem to have so much to support them.

It is admitted that "after July the mortality from cholera infantum steadily decreases." Is it meant to imply—what, I submit, is the logical inference from the statement—that the number of deaths from cholera infantum steadily decreases after July, because the temperature rapidly diminishes and the food supply improves in quality?

I beg to be excused for quoting from a paper on this subject which I had the honor to read before the Section on Public and International Hygiene of the Ninth International Congress, held at Washington, September, 1887, as follows: "Dr. Davis (of Chicago) has shown by mortuary statistics, and by his personal investigations,

that July is the especial delinquent—more than three-fourths of the cases beginning in that month. This is not, so to speak, accident. It is the rule; and there must be reason for it. If continuous high heat, through successive days and nights, associated with stagnant air, is indeed the *causa causans* of cholera infantum, it must appear that such meteorological conditions are distinguishing characteristics of that month. Is that the case? Let us see. There were, at Chicago, in July, 1886, 13 days in which the temperature reached 80° and above; in August, there were 14. In July there were two groups of three successive days in which the temperature reached 80° and above, one being of five days' duration; in August, there were three similar groups of successive hot days—one continuing four and another five days. The longest continuance of hot days, with a break of a single day, was, in July, six, the mercury descending one day to 76.3°; in August, ten, the mercury falling one day to 79°. The sum of the thirteen hottest days in July, is 1,114.2°; in August, the sum of the fourteen hottest days is 1,198.4°—a difference of 84°. The mean daily range of temperature was, in July, 13.9°; in August, 12.2°. The least daily range of temperature was, in July, 5.6°; in August 4.2°. August was, therefore, the hotter month, with a greater number of, and longer lasting groups of successive hot days; with lower mean and daily range of temperature, and it followed June and July with their intense heat. Besides, the records show that there was more movement of wind in July than in August; or, in other words, the air was more stagnant in the latter than in the former month, there having been 5,472 miles of movement in July and 5,439 in August. With higher and longer continuance of heat and a calmer air in August than in July, the former ought, according to the hypothesis of Dr. Davis (and of the Editor of the REPORTER) to furnish a larger mortality list; but, on the contrary, the statistics show 285 deaths from cholera infantum, in July, and 201 in August—a difference of 84, which disparity would be greatly increased if three-fourths of the cases that died in August were charged to July, where they undoubtedly had their beginning. It is logically impossible to explain the high annual mortality from cholera infantum in July and the great and sudden decrease in the number of deaths in August, by the hypothesis of Dr. Davis (and the Editor of the REPORTER)—that is, upon the supposition that high heat, stagnant air and improper food are the principal causes; for these are as marked characteristics of August as of July if they are not more decided."

Besides, what becomes of the theory of the Editorial when the experiences of Northern and Eastern cities are contrasted with those of the Pacific and the Gulf States? In a paper read by Dr. N. S. Davis at the meeting of the American Medical Association at Detroit, in 1882, he said: "There is no evidence within our knowledge which shows that the milk distributed in San Francisco and New Orleans is any purer or of better quality than in Boston or Chicago. Neither are nursing mothers any more free from mental and physical infirmities, nor the sanitary condition of the dwellings, sewers, etc., more perfect in the former than in the two last-named cities. Yet an examination of the mortality statistics shows a ratio of about five deaths from cholera infantum, annually, for every 10,000 inhabitants in San Francisco and seven in New Orleans; while Boston gives 25 and Chicago 30 deaths from the same cause, for every 10,000 inhabitants." Surely some other cause, or causes, than "high temperature and food supply" must be found, to explain this striking contrast!

Florida, the most southern State in the Union, is comparatively exempt from cholera infantum. Dr. Hicks, at the time the Health Officer of Orlando, in South Florida, in reply to my inquiry, wrote: "Cholera infantum is almost unknown here." The same is true of almost every city and town in the State. Will it be contended that this remarkable exemption from cholera infantum in Florida and other Gulf States is due to lower elevation and shorter duration of heat, and better quality of food, with improved hygienic conditions? Again, quoting myself: "It thus appears that cholera infantum has its chief home in certain climatic regions; and that, within the territorial area which furnishes the conditions for the production of its cause, it prevails among the rich as well as the poor, in palatial residences as well as in crowded tenements and filthy cabins, in towns, villages, hamlets and isolated farm-houses as well as in compactly built insanitary cities. More; in the territorial area within which cholera infantum prevails, neither topographical nor other physical features of localities exert appreciable restraining influence; for its deadly

work is done at the seashore, on elevated plateaus and upon mountains. The cause has yet to be discovered; but the patent, significant fact remains, that, whereas it is a terrible scourge at the North, it is an infrequent and comparatively trifling affection at the South. . . . Cholera infantum, like yellow and typhoid fevers, Asiatic cholera, etc., is a specific disease, and has a special cause. It is not a gastro-enteritis, such as results from indigestible or fermented food, or from acrid poisons, like arsenic and tyrotoxicon. It is the effect of a specific poison which produces cholera infantum and nothing else. In the present status of etiological science it is a reasonable assumption that the special cause is a micro-organism, which exists and propagates under suitable conditions of climate such as are presented during the summer, in the Northern, Eastern and Middle States. As the germ of yellow fever finds its favorite home in tropical and semi-tropical America, and the germ of Asiatic cholera its appropriate *nidus* in India, so the germ of cholera infantum makes its habitat in the Northern and Eastern States of our Union. That their appearance is synchronous with the approach of the 'heated term;' that their numbers and power should culminate in July, or midsummer, is not more remarkable or inconsistent with natural laws than for flowers to have their time to bloom or fruits theirs to mature; and it would be easy to find analogies throughout the animal kingdom. As the theories of the chemical origin of the malarial poison have been made to give place to the microscopic demonstration of the malarial bacillus, so the chemico-physical hypotheses of the etiology of cholera infantum must, in their turn, be supplanted by the soon-to-be-discovered bacillus of cholera infantum."

CHILD-BIRTH AT TWELVE YEARS OF AGE.

BY E. B. WALES, M. D.,
COLD SPRING, N. J.

On January 1, 1890, Mrs. R., colored, called to see me in reference to her daughter, who was suffering, as she supposed, from suppressed menses. On inquiry I learned that she had last been unwell in September; that her age was twelve years, and that she first menstruated some time before she was eleven years old. As this is very young indeed for a girl to mature, I asked the mother if she was certain as to the girl's age, and she assured me that she was. I told the mother that she must not be alarmed about her daughter and that in a few days I would call to see her.

Some four or five days later I called at the house and found the girl lying on the lounge with her body and face well covered with some article of clothing. The mother said she complained of feeling weak and easily fatigued, and of having a little sickness of the stomach. I asked the child to get up and to come over to where I was sitting. She did so; but very reluctantly. She apparently did not feel very pleasant towards me, and I could not, in any way that I could devise, attract her attention or get her to fasten her eyes on me. On examination I found the pulse natural, the tongue clean and the respiration normal. The girl was pale and somewhat emaciated. I questioned her closely, but failed to get any answers, and I soon discovered that I had a patient who, though young, was as sharp and artful as one would wish to encounter. As she stood in front of me I noticed her becoming very nervous and faint, and I requested her to lie down. The thought occurred to me then that the girl was pregnant. Her very behavior spoke it. But I asked myself, Can such a thing be? Having become pretty well convinced, however, that this diagnosis was correct, I remarked to the mother that I would not prescribe anything for the present, but would call in after a little; and suggested that she should send for me if she needed me. I advised her to say nothing about the case to any one, for fear the wise women of the neighborhood would say that the girl was in the family way. This idea the mother thought preposterous, saying her daughter was a mere child, and that she feared she was going into a decline. I assured her she need have no fear of this and took my leave. In March, as I was passing the house, I called to see the girl and found her at work and in good spirits. She said she was feeling much better. The moment I saw the child, I was convinced she was pregnant; and, calling her mother to one side, I informed her of the fact. The child denied it positively up to the time of her labor.

On July 15, I was summoned hastily, at about 6 A. M., to the home of the girl. I arrived an hour later, and found her in the last stages of labor. The mother said she

had been in labor about six hours. She was suffering with bearing-down pains. I made a digital examination and found the os uteri nearly dilated, the membranes unruptured, the pains regular and not very severe, the pelvis spacious, the patient quiet and cheerful. She was soon seized with a severe pain, and a spontaneous rupture of the membranes immediately ensued. The pains came on, and recurred at short intervals, and in a short time the girl was delivered of a fine, healthy boy, weighing *eleven pounds*. She was possessed of great self-control and there were no moans or agitation during the labor. The labor was easy and natural, and the placenta was expelled without interference about twenty minutes after the child was born. The flow was rather copious, yet not enough to cause any alarming depression. The presentation was vertex, in the first position. The mother and child are now (July 21) both doing well; she nurses her babe and has a great flow of milk. She is of medium size, rather tall and slender, but well developed. Her age was twelve years on March 8, 1890.

SYNOPSIS OF THE PENNSYLVANIA REGISTRATION ACT OF 1881.

BY R. L. SIBBET, M. D.,
CARLISLE, PA.

[For the benefit of the readers of the REPORTER, Dr. Sibbet has prepared a brief synopsis of the law for the registration of medical practitioners in Pennsylvania, which will enable them to understand more fully the questions connected with this subject recently discussed in Editorials in this journal.]

We need not concern ourselves at present about the indirectness or obliquity of this Act of Assembly—whether this feature of it was accidental or intentional. It is sufficient to state, as Judge Woodward has done, "that it is in all respects a valid and constitutional statute." Nevertheless it may be useful to present the following synopsis for the consideration of the profession.

Sec. 1 relates chiefly to the work of the Prothonotary. "His duty is merely clerical." "He can dispense with nothing which the law requires." He cannot substitute anything. (See Judge Woodward.)

Sec. 2 fixes the standard of qualifications of the practitioner of medicine. He must have the degree of Doctor of Medicine. Of course he cannot obtain it fraudulently. He must have a residence. He may also be a sojourner. (See Judge McPherson.) In either case he must present his diploma to the Prothonotary, as well as a true copy of it, including the endorsements on it, to be filed. He must give his full name, his place of nativity, his residence, the name of the institution which conferred upon him his degree, and he must do all this under oath or affirmation.

Sec. 3 provides for practitioners whose diploma has been destroyed or is lost.

Sec. 4 makes the medical faculties of the Commonwealth of Pennsylvania the sole judges of the qualifications of foreigners or those who are graduates of medical schools outside of the State. The faculty may require an examination, but the dean must endorse the diploma before registration. A certificate on a slip of paper is not an endorsement. (See Judge Elwell on this section.)

Sec. 5 provides for non-graduate practitioners. They are allowed to register provided they have been in continuous practice in Pennsylvania since 1871. (See Judge Woodward.) Men who manufacture liniments and sell them are not practitioners and cannot register. The people do not call them in to prescribe. The court must decide the question.

Sec. 6 provides for compensation for the Prothonotary. It is fraudulent registration unless it is paid for.

Sec. 7 defines a misdemeanor. The presentation of a diploma "obtained fraudulently" is a misdemeanor. A diploma must be obtained in an honest and honorable way. A chartered institution may issue a fraudulent diploma. The faculties of our medical schools and the prothonotaries of our courts were the first to disregard this part of the law. The registration of a foreign diploma without an endorsement is a fraudulent procedure and a misdemeanor.

Sec. 8 provides for practitioners residing in other States. They may practice in Pennsylvania, but they cannot do so without registration if they open an office. In this case the practitioner becomes a sojourner. A resident of one county may sojourn in another county part of the year, but he must register in both. He cannot, however, sojourn at the same time in two or three counties. He cannot become an itinerant under the law. (See Judge McPherson.)

FOREIGN CORRESPONDENCE.

LONDON LETTER.

Foreign Correspondents. — Lengthening the Medical Course. — Lectures in Medical Schools.—Dietetic Treatment of Gout.

One of the American medical journals has lately indulged in some caustic comments on the value of the English letter. After reading those remarks the writer at once decided to throw up his post as London correspondent to your journal; a hasty resolution, however, which further consideration has somewhat shaken. One of the chief objections urged against the special epistle seems to be that its matter is not always original. Does any one need to be reminded at this stage of the world's progress that journalists are the greatest borrowers on the face of the earth? Nowadays, with rapid and far-reaching communication, the fame of anything new is noised abroad to the four quarters of the globe in less time than that in which Puck undertook to place a girdle round the earth. Matter may be stale; yet the method of retailing it may be fresh, crisp, original and instructive. The axiom may be laid down with some degree of confidence that there are few pleasanter ways of drawing in stores of information than from the gossip of a well-written letter. The reader is thereby furnished with the easily-digestible extracts of a hundred journals to learned societies, spiced with the correspondent's own individuality. To be successful, a journal can hardly supply too varied a bill-of-fare. Besides—although the exact rate of payment for these contributions shall be concealed with cuneiform secrecy—it will be no great breach of confidence to hint that remuneration is not on so magnificent a scale as to warrant a man of average abilities spending more than, let us say, three or four days in composing one of them. The paragraphist remarks, truly enough, that the late Dr. Milner Fothergill was the first to draw attention to the London letter in American medical literature. The writer thus alluded to was possessed of great literary abilities, and had the rare gift, amongst others, of throwing a halo of interest around any topic, however commonplace. Unhappily, all medical "specials" are not Fothergills; but, happily for many men, ordinary journalism is to a great extent a mechanical art, requiring little letters and much scissors and paste. This open and candid confession may perhaps soften the cynic harshness of the critical journal, the name of which has unfortunately escaped from memory.

Turning to the journals—by force of habit—it is evident that the decision of the General Medical Council to add another year to the course of study has made no little stir. One method of reducing the number of recruits is to render the curriculum as uninviting as may be. The addition of a fifth year is certainly a serious monetary tax on those entering the profession, as well as another fence to be surmounted before the coveted license to practice is gained. Some of the lay journals, in commenting upon the subject, are loud in their outcry against the injustice of adding the cost of another year's work, which had not been taken into the calculations of students or of their friends. It is quite improbable, however, that fresh regulations would apply to those who have already entered upon their studies. Hitherto, medical legislation in this country has not been retroactive. The chief reason for the change is that the ever-increasing field of knowledge demands an extended time for study. Specialism in every branch has advanced by leaps and bounds, and a fair insight into, at any rate, their broad principles is expected of all well-educated practitioners. At the same time, opinions differ as to the best way of devoting the extra twelve months. Many men maintain that the time would be best spent in practical work.

Whatever be the outcome, one is pleased to see that the important subject of medical education is receiving practical consideration. Like most other institutions rendered venerable by the weight of many ages, the whole system has become loaded with incongruities and chronicisms and abuses. One is loath to believe that so progressive a profession will allow this state of things to continue when once its defects have been clearly exposed. Amongst other burdensome inheritances forced upon the modern student is the compulsory attendance upon lectures. When books were scarce and pupils proverbially lazy the custom was not without its advantages. But now books are plentiful as the sands of the seashore, and, as a matter of fact, the lecturer not infrequently reads to his class a chapter from one of his own volumes. And nowadays—*O tempora!*

O mores!—the student who does not read is almost as rare a bird as the worker was in days of yore. It is, undoubtedly, to the interests of lecturers to stick to their guns, for in many cases class fees form their main source of emolument. The Council has fallen in with the recommendation of the Education Committee that not more than three lectures should be delivered weekly upon any one subject. Sir William Turner is reported to have declared he would decline to be bound by any such recommendation, which is probably not worth the paper it is written upon, however meritorious in intention. The anatomy Professor of Edinburgh University is one of the few men that most students could listen to with advantage six days a week through the six months of a winter session. His fine descriptive powers, his wonderful grasp of detail and his eloquence are of more value than many books. Still, the fact remains that lecturers exist who are unversed in the simplest rules of rhetoric and with whom the gift of teaching does not lie.

The subject of education is not the only one—according to Dr. Mortimer Granville—that is clothed with a parasitic growth of prejudices. The ordinary dietetic treatment prescribed for gouty patients, he maintains, is a delusion and a snare. It is useless to forbid sugar, since there is 70 per cent. of convertible starch in bread. He observes that flesh-eating animals produce little uric acid, while the herbivora are noted for the reverse. Whiskey he condemns; sound claret is to be taken in moderation, and, even well-matured port wine. Butcher meat may be eaten at discretion, while sugar is recommended as a natural stimulant to the kidney-cells. It would, perhaps, be going too far to say that the science of dietetics is in its infancy, yet the ordering of port to gouty patients somewhat startles one by its revolutionary air.

Apart from the obscure chemico-physiological problems involved in the study of dietetics, the surest guide seems to be that of practical experience. Since the appearance of Dr. Granville's article not a few medical men have come forward to confirm his statements. One man who has been a martyr on and off for seventeen years remarks pithily that he has tried great moderation in every way and had the gout; while he has been less moderate and still had attacks. The whole matter merits careful investigation. D. W.

PERISCOPE.

A Plea for Better Wives and Mothers.

Dr. Grace Danforth, of Granger, Texas, in a sensible article in the *Texas Courier-Record of Medicine*, June, 1890, says: The trend of modern medical thought is towards prevention rather than cure. In some departments notable progress has been made while in gynecology very little has been effected. Women are so accustomed to be a bundle of aches and pains they have accepted the condition as a dispensation of Providence. Men are beginning to wonder if their inalienable rights do not include a healthy wife. Too many find life hardly worth living, liberty a delusion and happiness an unmeaning term, in the vain attempt to satisfy the vagaries of an invalid. To the credit of the majority they accept the situation with fortitude and make the most of what little domestic happiness remains to them.

The past educated man, and from his necessities he constructed a costume to meet his wants. The present is attempting to educate woman, but in the matter of costume she has her own as well as masculine prejudice to admonish her to be womanly and follow in the footsteps of her mother. In the vocabulary of the future it will be "unwomanly" to be an invalid. Our mothers have not covered themselves with glory by a contribution of healthy wives to the present generation. Perhaps the future may give us a much more desirable definition to the term "womanly" than the past has done. Female education has been confined to domestic work and "accomplishments," which mean a polishing for society with a view to matrimony. Making the marriage relation a success has received small consideration.

It is no new truth to the medical fraternity that woman's costume ruins her health. It is somewhat a matter of surprise that the profession do so little in educating women to better conduct in the matter, but when it is remembered physicians are estimated by their pills and powders, while advice falls upon deaf ears, it is no wonder they grow weary of bestowing it. It is claimed self-interest paralyzes effort in this direction, but physicians know it is a more potent factor in human affairs than even

self-seeking-woman's ignorance, and bondage to fashion.

We wonder at the prevailing idea among women, that a compressed waist adds to their beauty. It was not æsthetic culture but practical demand that created the deformity. When society emerged from the chaos of the dark ages, men put a premium upon woman's virtue by refusing to lead to the marriage altar a woman who had sullied her fair name. Marriage was her only hope, and pleasing those in power her only resource for securing it. Slender waists were cultivated as a means of advertising maidenhood till the disfiguration lost its significance and was regarded as beautiful. Husbands were proud of wives whose waists they could span. As men encouraged it, and women did not realize the fearful wrong perpetrated against nature, small was the hope for improvement.

Some forty years ago a few earnest women, realizing the necessity for reform in woman's dress, adopted the Bloomer costume. It met every hygienic requirement, was light and warm, emancipated waists and hips, equalized the circulation and gave freedom to the limbs; but it was not beautiful, and men as well as women combined to ridicule it out of existence. It was too much for human endurance, brave as its advocates were, to be a free menagerie every time they appeared in public.

At present Madame Jeness Miller is attempting in a more conservative manner to correct the evils of a woman's costume. She does not shock prejudice by a radical departure from fashion in the outer garb, but frees the vital organs from compression and suspends the clothing from the shoulders. The tight sleeve, which interferes with motion and circulation, has proved a blessing in disguise. It has taught women the advantage of knitted underwear over the old unyielding fabrics.

When women will consent to machinery monopolizing this field of labor, a vast gain of health and time will accrue to the human family. There will be a decrease of work for the gynecologist caused by the sewing-machine while the neurologist and oculist will realize in their several specialities the improved order of things.

All these evils have been recognized by the medical profession, but a practical age is asking, What is to be done about it—how are these evils to be corrected? Medicine has exhausted its resources in pills, powders and surgical appliances, yet still the evil is increasing in every direction. Symptoms are treated because the cause cannot be reached by ordinary means. It is a case similar to that of Oliver Wendell Holmes, where treatment should be inaugurated two hundred years before the patient is born. The problem of woman's physical emancipation must be solved by women, but they cannot do the work ignorant of physiological law.

The medical fraternity is a potent factor in educational interests, as every teacher can testify, yet they have submitted too long to a curriculum arranged by professional teachers who sacrifice the physical branches to mathematics and languages. Our boys as well as our girls, need a better knowledge of physiology, but it is woman's cause that is under consideration. Could not the medical fraternity use its influence in having anatomy, physiology, hygiene and chemistry better taught in our schools and especially in our female seminaries? What better use could be made of medical women locating among us than to utilize them in schools where they can reach our girls in a way male practitioners cannot? During school life our daughters emerge from girlhood to womanhood, a critical period in female development. Were a woman in charge of the health of the institution there would be no hesitation on their part in seeking advice early enough to avert many of the mistakes made through ignorance, blasting health and sometimes the hopes of wifehood and motherhood.

Many mothers from a false delicacy fail to instruct their daughters upon plain physiological facts, that every girl upon coming to woman's estate is entitled to understand. A knowledge of the most sacred laws connected with our physical being is left to the tuition of companions and servants. Men realize that innocence and ignorance are not synonymous terms, but women still confound them. With the progress of our present civilization our daughters demand better instruction than their mothers received to make a more just discrimination between modesty and prudery. Unborn generations are demanding better mothers.

Experimental Studies in Tuberculosis.

The *Weekly Abstract of Sanitary Reports*, June 13, 1890, contains a translation from

La Rivista Internazionale d' Igiene, Naples, May, 1890, which states that at the Heidelberg Congress of German naturalists and physicians, Schottelius stated that some years ago he instituted a series of experiments with tuberculous lungs interred in a wooden box at a depth of five feet, the usual mode of sepulture of bodies. After two years and a half he removed from the earth a quantity of tubercule bacilli, for the most part spore-producing. From this material he obtained pure cultures which furnished positive results in 80 per cent. of his experiments in inoculation. He is now engaged in investigations with the object of ascertaining whether the virulence resides in the bacilli taken from the soil or in their spores. Soyka expresses the opinion that the greater number of the bacilli perish, but that some possess durability and may recover their virulence under favorable conditions. Gärtner has observed bacilli in a cemetery abandoned for twenty-five years. As a practical outcome of his investigations, Schottelius advises the disinfection of bodies of persons dead from infectious diseases.

Gebhardt has experimented on the sputum of consumptives, his object being to test the virulence of the sputum in different grades of dilution, and to ascertain whether the potentiality of the tuberculous virus is essentially modified by the organ first infected—that is to say, by the manner of infection. With this object he practiced hypodermic and intraperitoneal inoculation and experiments in inhalation and alimentation, and ascertained that the subcutaneous connective tissue, the peritoneum and the lungs are inclined to receive and multiply the tuberculous virus in about an equal degree, while the digestive apparatus offers resistance. Hence tubercular virus may, especially in small quantities, pass through certain organs without provoking local alterations. As the point of ingress is not always the seat of the disease, pulmonary tuberculosis is not always to be attributed to infection by inhalation.

Sputum which contains bacilli is enormously infectious, retaining its virulence even in dilution of 1-100,000, apparently without regard to the manner of infection. The virulence of the sputum being in proportion to the quantity of bacilli present, Gebhardt employed pure cultures of the bacilli of tuberculosis, on the hypothesis that equal quantities of the same culture contain equal quantities of bacilli. With a subcutaneous inoculation of 1 c. c. of a dilution in the proportion of 1-400,000 and an inhalation of 0.5 c. c. of the same dilution in a culture of agar-agar he obtained positive results. Hence the pure cultures retain their virulence when enormously diluted.

Malassez and Vignal desiccated the sputum of tuberculosis, moistened it with water, again desiccated and pulverized it, and this repeatedly, endeavoring to realize, as far as possible, the conditions to which the sputum daily ejected in our streets is subjected. After successive desiccation and humectation the bacillus of the sputum retained all its virulence.

With regard to the penetration of tuberculous bacilli into the organism, Dobroklonski states, as the result of his experiments in the Cornil laboratory at Paris, that tuberculosis may attack the organism by way of the digestive apparatus. For this infection to occur, no lesion of the intestinal wall, epithelial desquamation, local modification, nor anterior inflammation is necessary. The tuberculous virus (bacilli and spores) may easily traverse the completely normal epithelial lining of the intestine, but it does not determine inflammation unless it remains for a length of time in contact with the intestinal wall. Dobroklonski asserts that the tuberculous spores and bacilli do not penetrate the organism by any fixed means, but that they are carried by the current of the lymphatic system, and, being arrested by the tissues, determine in them the formation of tubercules.

As a natural inference from Hirschberger's experiments demonstrating that tuberculous cows, or cows infected with tubercular phthisis, produce, in 55 per cent. of cases, infectious milk, it was supposed that milk from large dairies would contract virulent properties from the infectious milk of one tuberculous cow. A series of experiments, conducted by Gebhardt, under the direction of Bollinger, in the Pathological Institute of Monaco, show that tuberculous milk loses its virulence at a certain dilution. The mixing of milk, practiced in large dairies, diminishes the danger, and in most cases renders the milk innocuous. Milk served by large dairies is always to be preferred to the continued use of milk from the same cow.

Studies in the transmission of tuberculosis from animals to men by means of tuberculous milk directed the attention of hygienists to the derivatives of milk, the most im-

portant of these being butter. Gasparini inoculated guinea-pigs with butter containing the bacillus of Koch, and by microscopic observation verified tubercular lesions in almost all cases.

Referring to his studies of the infectious property in the flesh of tuberculous animals, Kastner stated that the object of his experiments was to ascertain if such flesh contained virus, and to what extent the consumption of such flesh, as meat, was dangerous to man. From the results of his experiments he concludes that the danger is slight, unless the nodules of tuberculosis are formed in the meat, which is rarely the case.

Genital Origin of Asthma in Women.

Dr. Charles A. L. Reed, of Cincinnati, Ohio, has a paper on the relation of disturbances of the generative organs of women to the development of asthmatic attacks in the *Cincinnati Med. Journal*, June, 1890.

He says that the form of paroxysmal dyspnœa, called asthma, is now very generally recognized as a neurosis. The absence of any definite trophic lesion within the lungs forces the view that the essential seat of the disease is in the pulmonary plexis of the pneumogastric. The clinical characteristics of the asthmatic seizures, taken in connection with the inter-paroxysmal period, forces the view that the involvement of the plexus extends no farther than a morbid functional perturbation. Back of the actual disturbance, however, must exist an abnormal sensibility of either the sensory or motor filaments or both. It is this abnormal sensibility which renders possible the spasmodic reaction from agencies and influences which would produce no effect at all upon a more stabile nervous system.

Given this hyperæsthetic segment in the great nervous chain, how is it influenced that bronchial spasm results? A particle of dust or a gaseous exhalation may come in contact with the sensory filament of the pulmonary plexus, the impulse may be transmitted to the nearest ganglion, transmuted into a motor impulse, returned to the tube and induce tetanic contraction in its muscular walls. An emotion may induce not only cerebral excitation, but centric irritation of the medulla at the origin of both the sympathetic and the pneumogastric; over these joint highways of transit, an impulse is started to the remotest nooks and crannies of the body; in the majority of organs little or no change is produced, but through the intervention of these hyperæsthetic pulmonary filaments, a disproportionally greater change is induced in the lungs; bronchial spasm takes place and the dyspnœa of asthma is at once experienced. Or the impulse may come from below. A heavy supper with resulting indigestion causes an irritation of the gastric branches of the vagus.

The exaltation of reflex sensibility which comes with sleep favors the transmission of the impulse over that great telegraphic line from the stomach to the lungs, called the pneumogastric, and with the midnight hour comes, not calm repose, but a gasping fight for air. But these disturbing influences may originate far below the reach of the pneumogastric. Who has not seen the victim of a renal colic, otherwise healthy, gasp for breath; and who, at the same time, has not drawn a mental picture of the telegraphic circuit from the cramped kidney, over the renal plexus, up the great sympathetic, out over the pulmonary branches to their anastamosis with the pulmonary branches of the pneumogastric, and thence to the rudely inhibited bronchial muscles? If now, we introduce the additional factor of hyperæsthetic motor filaments in the pulmonary plexuses, we shall see instead of an occasional interruption in the respiratory rhythm, a tetanic contraction of the muscular coats of the bronchi, and all the essential phenomena of an asthmatic seizure. But the source of irritation may be even farther down this tract and this brings us up to the intra-pelvic or genital origin of asthma.

Hyde Salter, in discussing the etiological influence of sex, states, that of 207 cases, 138 were males and 69 were females—just two to one. After explaining that males are more exposed to such exciting causes of asthma as labor and exposure, he adds: "an asthmatic nervous system is a mobile nervous, sensitive system, and certainly the female nervous system is more mobile and sensitive than the male. Consistently with this, I believe it will be found that idiopathic asthma—the pure neurosis—is as common in women as in men, and that the cases by which so large a preponderance is given to men, are cases starting from bronchitis. This view is fully borne out by the cases that have come under my observation. Twenty-three of my patients, of whose cases I have recorded notes, were between twenty

and thirty years of age; of these, nine were males and fourteen were females. Between fifty and sixty years of age, I had nineteen patients; of these sixteen were males and three were females. Thus, at the period of life at which the lungs are the least likely to be organically affected but at which the nervous system is more excitable, the females exceed the males—in the proportion of three to two; while at the time of life when organic diseases of the lungs is likely to exist, the males greatly exceed the females—in the proportion of five to one."

Dr. Reed contributes reports of five cases to the literature of this subject, and concludes by expressing the opinion that there occur certain cases of asthma in women, limited in number, in which there is a distinct intra-pelvic origin of the disease; that the causal relationship of the two conditions is indicated by either the sequent or coincident occurrence of intra-pelvic and respiratory symptoms; and that the cure of the bronchial spasm, whether intermittent or constant, can be effected in these cases only by rational treatment of the causal conditions within the pelvis.

Treatment of Rheumatism with Phenacetin.

Rifat, according to an editorial in the *Boston Medical and Surgical Journal*, June 26, 1890, reports the results of recent experimentation with phenacetin in rheumatism, both acute and blennorrhagic. He has treated sixteen cases; in three of these all the joints were more or less affected; in four only two or three joints were swollen and painful. In the three grave cases, which were attended with a very high fever, he was obliged to give large doses, fifteen grains every three hours day and night. In six of the cases he gave the fifteen-grain dose only every four hours. There is, he says, extreme tolerance by the stomach of phenacetin—an advantage over antipyrin. It is well to begin treatment by giving only forty-five grains a day, that is, fifteen grains every three hours till three doses are taken. This dosage is, however, insufficient in rheumatic polyarthritis. Where he begins with forty-five grains *per diem*, he increases by fifteen grains a day until the pain has ceased, and the movements of the joints are restored. Ordinarily by the fourth day, when the daily dosage of ninety grains is reached, there will be noticed disappearance of the pain, freedom of movements and absence of heat and swelling about the joints.

The maximum dosage, which is determined by the state of amelioration of the patient, is continued during the three following days—exceptionally, for a week; then the doses are gradually decreased by fifteen grains a day until the quantity of forty-five grains *per diem* is reached, and the medicine is continued in that daily amount for a week, when it can generally be discontinued. In very severe cases it is necessary to continue the augmentation of doses till the fifth day, when the daily quantity has attained two drachms.

The treatment as above described demands, in cases of average intensity, seventeen days; in grave cases, twenty-one days. It will thus be seen that the mean duration of grave cases does not exceed twenty-one days. If we compare these results with those obtained by Guttmann with salicylic acid, whose mean duration was thirty-five days, and with antipyrin which gave a mean of twenty-five days, we see that phenacetin administered in the manner above described, appears to be the remedy to which preference should be accorded.

As for the secondary effects of these large doses of the drug, Rifat sums them up as follows: In patients treated with phenacetin, there may be observed three sorts of phenomena imputable to the secondary action of this medicament, and which are: profuse sweating, cyanosis, and uremic accidents. Abundant sweats, especially in cases complicated with high temperature, are the rule; these are due to the hyperthermia, and when once the temperature falls to the normal, the sweating subsides. The sweats are wanting in apyretic rheumatism, and when they occur in the febrile form, they do not contra-indicate the continuance of the medicine, whether this be phenacetin, antipyrin or salicylate of soda. There is less liability to cardiac or other visceral complication when the remedy is pushed.

Cyanosis is a rare accompaniment of the administration of phenacetin. Rifat has not seen it in any of his rheumatic patients; in fact, he has never witnessed it but once, namely, in a case of typhoid fever. Uremic accidents are also very infrequent. They have, now and then, been witnessed in rheumatic patients with arterio-sclerosis and contracted kidneys as the result of suppression of the urinary excretion by the administra-

tion of phenacetin. Hence, it would be necessary when giving this remedy in large doses to nephritic patients to have surveillance of the renal functions, and to suspend the medicine if uremic symptoms should appear. Relapses are not very frequent, if the physician takes the precaution to continue the phenacetin after the method above indicated. If, however, the remedy be too early suspended, a relapse will be almost certain to follow. The same result has been noticed when salicylic acid or antipyrin has been given.

As regards blennorrhagic rheumatism, Rifat concludes, from an observation of three aggravated cases that, in cases where salicylate of sodium has completely failed, phenacetin may have a real curative action. This disease is often most intractable, being the opprobrium and despair of the physician; though its pathogeny is doubtless widely different from that of acute rheumatism, yet in the cases reported by Rifat, phenacetin gradually pushed to six and eight grammes a day (certain auxiliary local measures, as compression, being also employed) gave most satisfactory results, the pain and swelling rapidly subsiding, sleep and the power of movement returning. Unfortunately, three cases is too small a number to warrant a definite conclusion.

Naregamia: A New Expectorant.

Dr. Schoengut, of Vienna, has been recently experimenting with the tincture of naregamia, which is prepared from the bark of the *naregamia alata*, a shrub indigenous to India. As the pure tincture is too stimulating it is important to dilute it, as with cherry-laurel-water, in the following prescription:

℞ Tincture of naregamia, ♏xvi–xlv (1–3 grams);
Cherry-laurel-water, f℥iii–f℥i (10–30 grams).
M. Sig. Ten drops every hour.

Dr. Schoengut, the results of whose observations are given in the *Journal de Médecine*, March 23, 1890, employed the drug as an expectorant in twenty-four cases of various affections of the respiratory organs, the amount of the tincture given being from 16 to 50 minims in twenty-four hours. The expectorant action of the drug was manifest in every case, especially in those characterized by scanty secretion and severe cough, or where the expectoration was viscid and stagnant. In cardiac affections, accompanied by catarrh of the respiratory tract, the tincture of naregamia acted most beneficially. Admirable results were obtained by use of the drug in cases of pulmonary emphysema.

In tuberculous subjects, the action of the tincture was only temporary. Naregamia renders the bronchial secretion more fluid and less viscid. The improvement in the expectoration is always followed by diminution of the respiratory difficulty.

The circulation, the pressure of blood, and the digestion are not affected by the drug, which has no toxic action whatever.

Abscess under the Palmar Fascia.

Dr. H. H. Spiers, of Edinburgh, Ohio, writes in the *Cincinnati Lancet-Clinic*, June 28, 1890:

Every surgeon of experience has met one or more cases of the above affection. The strong palmar fascia prevents any great swelling, and in a measure precludes palpation, so that it is difficult to diagnose the presence or absence of pus with certainty. If seen late the lance is commonly resorted to. If seen early hot fomentations or poultices are usually applied for a time and the use of the lance postponed.

In my experience poultices and fomentations amount to but little. In the use of the lance, whether early or late, parts are severed that never again unite; the hand is left disabled as a consequence. If the abscess be allowed to remain unopened, the pus burrows into, or so paralyzes the muscles of the hand, that its use is ever after limited. In either case a claw hand is the result.

I have seen a number of cases and have closely observed the results of treatment. To me no method has proved so satisfactory as the following: Pass a large needle, with a curved point carrying a double thread of surgeon's silk, near or into the annular ligament, well into the tumor and let it emerge between two of the fingers—preferably the ring and the middle. The operation is brief, the pain little, but an anæsthetic may be used or a hypodermic injection of morphia or cocaine may be given if preferred. The double thread is left long, and is knotted at both ends. By alternately pulling the thread backwards and forwards any pus along the line readily makes its exit. The parts gradually settle back to their wonted place and recovery is complete.

This operation has the merit that it may be used early or late. Of course, it will not retrieve any damage already done.

I have frequently resorted to this method in tumors of the face and neck, where it is dangerous to lance or where a scar is not desired, usually with good results.

Operation for Loose Cartilage.

At the meeting of the Berlin Medical Society, July 2, 1890, Prof. Max Schüller presented a young man, twenty-three years old, in whom he had opened the left knee-joint for an irreducible movable cartilage of the joint, wedged in between the articular surfaces of the inner condyles. The movable cartilage could not be seen in the unopened joint, but Dr. Schüller supposed from the history of the case, which had given the signs of a free and movable cartilage, and from the symptoms which were present when he saw the patient (sudden pain in inner side of the left knee-joint, continuing with impossibility of using the limb, and impossibility of extending the knee, which was held in a semi-bent and somewhat abducted position), that a loose cartilage must be squeezed between the inner articular surfaces. After having failed in an attempt to effect reduction by manipulation, he made, with strictest aseptic precautions, a longitudinal incision of from 10–12 centimeters long between the patella and the internal lateral ligament, opened the capsule of the joint, and freed it with a few small incisions from the condyles, and then abducted the leg forcibly while in a semi-flexed position. By this proceeding the inner condyles projected out of the opening of the capsule and were separated, so that it was possible to look through a small space in the opened joint. The loose cartilage, a pear-shaped piece of cartilage on a fibrous pedicle, was placed on the emminentia inter-condylica tibiæ and now projected in the space between the inner condyles. It was cut away, then the semi-lunar cartilage, which was a little displaced in consequence of disturbance of the capsule, was sewed again at the capsule and the joint was closed.

Four weeks later, after a healing by first intention without any fever, the patient began to walk. Four months afterwards he walked quite well. Now he can move the knee freely and easily to a right angle and can take part in all sports and dances without any trouble. Dr. Schüller believes that this manner of opening the knee-joint, which allows an inspection of the lateral parts of the joint between the condyles without any lesion of the great ligaments, will be also of use in cases of so-called internal displacement, of sub-luxation and breaking off of a meniscus with irreducible entanglement between the articular surfaces. In such a case quite recently some one has done an excision of the whole knee-joint. Schüller believes that his mode of opening the lateral part of the joint renders unnecessary excision in these cases and will give a surer help than fixation-apparatus, which is not very satisfactory in its effects.

Intubation for Croup.

Dr. Waxham read a paper at the Nashville meeting of the American Medical Association, in which, to those competent to do the operation with delicacy and skill he recommended intubation in preference to tracheotomy at all ages, under all conditions, and under all circumstances. In support of this advice he fully recorded two hundred and eighty-five cases with one hundred recoveries, or thirty-five per cent. These cases were not selected, the majority of them being among the poor and destitute, where tracheotomy would hardly have been considered. The ages ranged from five months to twenty years, and the operations were not performed early, but as a last resort. The ages were as follows:

Under	1	year			10	cases,	with	3	recoveries.
Between	1	and	2	years	37	"	"	9	"
"	2	"	3	"	46	"	"	10	"
"	3	"	4	"	47	"	"	17	"
"	4	"	5	"	59	"	"	23	"
"	5	"	6	"	27	"	"	14	"
"	6	"	7	"	18	"	"	7	"
"	7	"	8	"	20	"	"	9	"
"	8	"	9	"	7	"	"	4	"
"	9	"	10	"	6	"	"	3	"
"	10	"	11	"	3	"	"	1	"
At	12			"	2	"	"	0	"
"	13			"	1	"	"	0	"
"	14			"	1	"	"	0	"
"	20			"	1	"	"	0	"
					285			100	

Among those to recover were two infants of nine months and one of ten months. There were ninety-three cases under three years, with twenty-two recoveries. There were one hundred and ninety-two cases over the age of three years, with eighty-eight recoveries.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

A MEDICAL EXAMINERS BOARD IN NEW JERSEY.

Just before the Fourth of July some excitement was created in medical circles in Philadelphia by the hurriedly-circulated report that a law governing medical practice in New Jersey would go into effect the next day, making it a penal offence for any physician not registered there to practice medicine in that State, and providing that no one should be registered who had not passed an examination before a State Board of Medical Examiners.

As a consequence a number of physicians, who thought they might some day wish to attend patients in New Jersey, lost no time in crossing the Delaware with copies of their diplomas, and the small fee required by the existing law, for registration with the Prothonotary of Camden county.

Other physicians heard the news only in time to regret that they had not heard it sooner; and some of the daily newspapers took the matter up and gave expression to the sentiment, which had got abroad, that the law was a shrewd move on the part of the physicians living at the summer resorts in New Jersey to free themselves from the annual incursion of summer practitioners from outside the State.

The readers of the REPORTER in New Jersey will see by this that the purpose of their law was as much misunderstood as were its provisions; and, in consequence of this misunderstanding, we give in this issue of the REPORTER a full synopsis of it. It does not affect the present rights of physicians called in consultation from other States, or even of those who are simply called there in the ordinary run of practice. While it extends its courtesy thus far it regulates the conditions of license for all persons who shall hereafter take up their abode in New Jersey with a view to practicing medicine, and deserves careful attention, not only in that State but also in every State in the country.

There are certain defects in the New Jersey law which somewhat modify the gratification the friends of medical reform might naturally feel at the passage of any law establishing a State Board of Medical Examiners. We note that there seems to be no provision at all for preventing men from practicing without examination who claim that they have already practiced in New Jersey at any time. The expressions of the law refer to those "hereafter commencing" the practice of medicine. We are told also that the law was pushed through the Legislature by a few physicians who think they have special influence with the present Governor, and it is feared that it was intended rather to forestall the passage of a better and more thorough law than as a real advance. It is a cause of complaint that it formally recognizes as "schools of medicine" the homœopathic and eclectic sects and gives a single representative of either one of these

small bodies the power to prevent the licensing of any applicant—because a unanimous vote is requisite for obtaining a license—while the provision for a "Committee of Review," in case of appeal by a rejected applicant, authorizes the creation of a tribunal in which each of the three bodies recognized by the law is represented by one representative and might furnish no relief whatever to an applicant unjustly rejected.

These certainly seem to be defects in the law referred to; but we sincerely hope that they will not be found to be irremediable. We believe it would be better in any State to leave the appointment of a Board of Medical Examiners to the Governor, with no restrictions except such as would be imposed upon him by public sentiment, and we deprecate the mention of different sects in a bill which ought to have nothing with their contentions. We think also that the provision for a unanimous vote in favor of a candidate might be changed; although the law always presumes faithfulness in its execution, and under these circumstances it ought not to be too much to ask that intending practitioners of medicine should be prepared to secure the approval of the whole of a small number of examiners. No law could be framed which would not be capable of abuse, and we believe the interest of the profession in New Jersey will be best subserved and the good of the medical profession most advanced if the new law in that State is supported where it is good and amendments are advocated where its provisions are imperfect or unwise. We regret that it does not appear to be all that some of us might wish; but think it may prove useful in itself and lead to something better in the future.

PROTECTION FOR SCHOOL CHILDREN.

Those who rule the affairs of the cities and towns of the United States have no more sacred duty than to protect the lives of the children who attend the public schools. A more defenceless set of subjects no ruler has, nor any which appeals more strongly to every instinct of manliness and generosity. Notwithstanding this, it is no secret that in many places the directors of the public schools, or those called by whatever name who have the management of them, are largely selected from the list of men who are supposed to deserve either reward or encouragement in the lower walks of a political career. This is undoubtedly the case in the large cities, and to the shame of New York and Philadelphia it may be said that the object of these directors or managers seems at times to be rather to provide points from which their friends can tap the public crib than to provide means to better the mental and physical condition of those for whom the schools are supposed to be provided. It may be that this statement will in a measure answer the inquiry of our contemporary, the Philadelphia *Press*, July 16, as to the point of responsibility for the fact that the Board of Health recently declared twenty Philadelphia schools to be in a condition prejudicial to public health.

These schools, the *Press* says, hold about 10,000 children every day of the school year, and the statement means that Philadelphia has enough children at school in disease-breeding buildings to fill a small city. But this is not all. Two years ago the Medical Inspector reported ten of these schools in just the condition in which he now finds them. The Lincoln School, in the Fifteenth Section, with its 944 children, needed drainage then, and it still needs it. It was then understood that the required improvements in drainage would be completed in the vacation. Two vacations have passed, and its water-closets are still in the cellar, and in a disgusting condition. Philadelphia has 920 girls and boys in the Thaddeus Stevens School, in the same section; and the latrines which were in the cellar two years ago are there yet. Here are nearly 2,000 children who for two years have been kept in conditions shown to be unhealthy,

by an inspection in 1888, which an inspection in 1890 finds still unhealthy, nothing effectual having been done in the interval. This, the *Press* adds, is true of eight other school buildings, while three schools in the Second Section, with 1,293 pupils, turn up after two years with just the same defects, each a gross danger to health, which no reader of these lines would tolerate in his own house, but which the city has left for two years.

It is with pleasure that we note the attention given by an influential paper to the subject of the unsanitary condition of our schools, and we sincerely hope that it will be able to as thoroughly arouse the moral sense of the school authorities as the importance of the exigency requires. The sickness and death for which such a state of affairs as is reported may be responsible, we would not undertake to estimate; but it is easy to believe that it may be very great and must be great enough to be a serious menace to the children in the community.

SPERMATORRHŒA AND IMPOTENCE.

By the term spermatorrhœa is meant a real or apparent discharge of seminal fluid, occurring without voluntary sexual excitement. Two varieties are noted: the true and the false; the latter, being simply a prostatorrhœa, destitute, of course, of spermatozoa. Cases of true spermatorrhœa are of rare occurrence. Its cause is various, generally some local irritation, such as masturbation; a diseased or disordered condition of the genital organs; constipation; acute general prostration—as after typhoid fever; overwork or any severe nervous strain, etc. The symptoms are obvious, and, in a genuine case of this disease, require active treatment, consisting of hygienic, general and local measures. The steel sound and electricity, locally applied, give tone to the parts. Ergot, in doses of from two to five grains daily, in atonic cases, is well spoken of by competent authorities.

By pollution we mean a nocturnal or diurnal involuntary emission of semen, attended by a venereal orgasm, masked to a greater or less extent. Nocturnal emissions are, in the majority of cases, simply physiological; but if caused by excessive indulgence in venery, or due to masturbation, they may become pathological. It is only then that treatment is indicated, which, in the main, should be directed towards purifying the thoughts of the patient, elevating his tone and, if possible, by effecting his marriage; for, very few married men, if any, suffer from this affection.

Diurnal pollution is rare and is always pathological. Cases are on record in which the presence of a woman, the fondling of a child or the mere thought of a certain woman would produce this unfortunate condition. Moral education, combined with the use of the steel sound, astringents, locally applied to the prostate and a general tonic, usually suffice in effecting great relief, if not an entire cure of this disorder.

An impotent person is one who cannot beget children because he cannot perform the sexual act properly, no matter what the obstacles may be, whether he have spermatozoa or not. On the other hand, in sterile persons, the inability to beget children is due to the absence of spermatozoa in the semen of the individual. It is true, that these two conditions may be associated in the same person; but they are distinctly two separate diseases. With a clear understanding of these two affections we can severally consider each of them.

Impotence, like spermatorrhœa, may be either true or false. True impotence may arise from a variety of causes: absence of the penis; too large or too minute an organ, preventing the act of intercourse; extreme epispadias or hypospadias, etc. Age is also a potent factor in causing impotence; hence, it is not a rare condition in old age; for the vigor necessary to bear the nervous excitement attending the act of coitus is wanting. There are, however, some remarkable in-

stances on record of men who are reported to have been capable of the reproductive act in very advanced life. Thus, Zadislas, King of Poland, at the age of ninety years, married his second wife and had two sons. Cato, the censor, is said to have had a son at the age of eighty years.

The treatment and prognosis in this class of cases under consideration must necessarily vary with the individual case. For want of space, we shall therefore be obliged to refer our readers to special works upon the subject. The greater number of impotent cases, with which the general practitioner comes in contact, are those of false or supposed impotence. In such cases the impotence is only imaginary. With persons so affected the utmost delicacy and tact of the physician are called for in order to gain the confidence of his patient; which once done, success in the cure of the individual is assured. Among the causes of false impotence may be mentioned sexual indifference, either temporary and spontaneous or more or less prolonged, as a result of sudden shock or excessive emotion; and lack of affection for the individual with whom copulation is attempted. Drunkenness, which is not habitual, may induce temporary impotence; and so may unnatural excitement of the sexual functions or protracted chastity.

The treatment of these cases is, first of all, to seek out and remove the agencies acting as the prime factors in producing the trouble. Then active exercise of both mind and body, together with attention to hygienic surroundings, will usually, with the form of treatment about to be advised, prove efficacious in curing the patient. Tonic medication is called for, as well as a generous diet. The bowels must be carefully regulated. Dry frictions of the entire body, by the use of the flesh-brush or massage, will be found useful. Sea-bathing is often beneficial. The main point, however, is to give the patient confidence in both his physician and himself.

There is left for our consideration the subject of sterility, which condition may arise from malposition of the testicles, obstruction in the excretory ducts of the testicles, obliteration of the canal of the epididymis, after double gonorrhœal epididymitis, and azoöspermism or the condition in which no semen, or at the best, unproductive semen, is secreted. For the treatment of these conditions the reader is referred to works specially treating upon these special subjects. In concluding this article, we would strongly impress the practitioner of medicine with the importance of the subject of genito-urinary diseases and the relation which he, as medical advisor of a community, must assume with the general public. The cure of disease is not the only object of the physician's effort; its prevention is often a higher and nobler one.

ETIOLOGY OF CHOLERA INFANTUM.

In this issue of the REPORTER is published an interesting paper by Dr. George Troup Maxwell, of Jacksonville, Fla., which contains matter well worth thinking about. In the Editorial which he refers to and criticises, we presented the view of the etiology of cholera infantum which is generally accepted by careful students of the subject. But in this, as always, the REPORTER did not wish to do more, or to intimate that differing opinions are not worthy of respect. There are, we well know, difficulties inherent in the theory adopted in the REPORTER, and Dr. Maxwell has very ably called attention to some of them. There is also much to be said in favor of the theory which he presents. The subject, however, is still in need of elucidation, and the true theory is likely to be discovered all the sooner if the matter is carefully and patiently and considerately discussed by men who are now of different minds. The columns of the REPORTER are open to all such men; and it will be a good thing if those of its readers who have something to say (briefly) will present their facts or their opinions to their fellows who consult the same columns.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

CYCLOPÆDIA OF THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. The articles written especially for the work by American, British and Canadian authors. Edited By John M. Keating, M. D. Vol. III. Illustrated. 8vo, pp. xv, 1371. Philadelphia: J. B. Lippincott Co. 1890.

The present volume includes Diseases of the Digestive System, Diseases of the Genito-Urinary Organs, the Blood, Surgery, and Diseases of the Osseous System and of the Joints. It is impossible to give an adequate review of it, space permitting scarcely more than a notice.

Three of the articles strike the reviewer as especially noteworthy: they are L. Emmett Holt's, on the Diarrhœal Diseases, acute and chronic; Enlargements of the Liver, by J. H. Musser; and Diseases of the Blood, by J. P. Crozer Griffith.

Dr. Holt has departed from custom by omitting a separate description of dysentery. He says: "The common view that in diarrhœa we have to do with lesions in the small intestine, while the lesions of dysentery are in the colon, is entirely overthrown by the *post-mortem* findings. The truth is, that in by far the largest number of cases classed clinically as 'diarrhœa,' the principal lesions are found in the large intestine, while in the cases of so-called 'dysentery,' lesions are almost invariably found in the lower ileum as well as in the colon." Regarding the etiology of diarrhœal diseases, he says: "Their chief exciting cause is something to the development of which two things have a fixed and constant relation, viz.: a certain degree of atmospheric heat and the practice of artificial feeding. Both these conditions are necessary. We believe the chief causative factor to be bacteria, and that these act in most cases by inducing changes in the food." The author expresses his own views clearly but moderately, and gives due weight to the opinions of others. The whole article is an admirable presentation of a most important subject.

The article on Enlargements of the Liver, by Dr. Musser, includes the most important affections of this organ which occur in childhood, namely, congestion, fatty and amyloid liver, hydatid disease, abscess, and tumors. The author gives a brief description of the liver in childhood, and then speaks of the diseases which simulate enlargement before treating of enlargement of the liver itself. The literature has been searched carefully, and though organic diseases of the liver are admittedly rare in children, it will be surprising to many to learn that records have been found of over one hundred and twenty-five cases of hydatid disease, of nineteen cases of malignant disease, and of thirty-four cases of abscess (which have been tabulated). This material has been analyzed and the results presented with the clearness and succinctness which the author's long devotion to affections of the liver has enabled him to give to it. The article is a valuable one, and is noticeably free from all padding.

Dr. Griffith gives a most thorough and complete study of Diseases of the Blood. It is a scholarly article from beginning to end, and is beautifully illustrated. Its place in this volume is explained by the fact that the author was asked to undertake it too late to complete it in time for publication in Volume II, where it properly belongs.

The editor, Dr. Keating, has chosen the subject of Diseases of the Uterus, Vagina, and Vulva, and has written a very readable article upon it.

To say that the present volume comes up to the expectations formed by the preceding volumes is in itself warm praise, and we must be content with adding that both editor and publisher are to be congratulated upon it heartily.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series. Volume XI. 8vo, pp. xxxii, 279. Philadelphia: Printed for the College. 1889.

This volume contains the papers read before the College from January, 1889, to December, 1889, inclusive. In it as usual are a number of valuable communications by prominent Philadelphia physicians. Dr. Charles K. Mills has an elaborate paper on Spinal Localization in its Practical Relations. Dr. Musser has two short contributions, one on the treatment of Peritonitis, and the other on Two Cases of Spinal Meningitis after Caries of the Vertebra. Dr. G. E. De Schweinitz's paper on Headache associated with unusual Visual Phenomena, is an extremely interesting description of certain headaches preceded, accompanied or followed by apparitions. One of the most important papers in the volume is that by Dr. Arthur V. Meigs, on Chronic Endarteritis, and its Clinical and Pathological Effects. Dr. Meigs believes that chronic endarteritis is as much a disease by itself—a separate entity—as are typhoid fever and measles. The disease, he says, does not necessarily involve kidney change, and, if it does, such change is only a very small part of the whole, and is subsidiary to something else. Dr. Meigs gives notes of eighteen cases, and makes out a clear case for a pathological entity which is too commonly spoken of as Bright's disease. Dr. Goodell has a characteristic paper on The Abuse of Uterine Treatment, a subject on which his large experience and ample opportunities for observation well qualify him to speak.

The volume concludes with the Jenks Prize essay for 1889 on the Diagnosis and Treatment of Extra-Uterine Pregnancy, by Dr. John Strahan, of Belfast, Ireland.

SMITHSONIAN MISCELLANEOUS COLLECTIONS, 708. THE TONER LECTURES. LECTURE X. A CLINICAL STUDY OF THE SKULL. By Harrison Allen, M. D. Delivered May 29, 1889. 8vo, pp. 79. Washington: Smithsonian Institution, March, 1890.

Dr. Allen speaks of this essay as a contribution to the morphological study of diseased action. He has studied all the crania within his reach—one thousand nine hundred and six in all—and has noted the anatomical peculiarities which were detected. The study of anatomical variation in the human frame, he says, is a phase of biology, and he holds it to be in this connection as important as any other which may claim the attention of the student of etiology of disease.

The essay is stamped with the painstaking and scholarly exactitude which characterizes all of Dr. Allen's writings. It is an extremely valuable contribution to the study of the skulls of all races from the point of view of a biologist.

The Odor of Ichthyol may be disguised by oil of citronella. The latter is itself employed, in Ceylon, against rheumatism.

NOTES AND COMMENTS.

Medical Examiners' Bill in New Jersey.

The bill for the establishment of a Board of Medical Examiners in the State of New Jersey, approved by the Governor May 12, 1890, provides that hereafter the entrance to the practice of medicine in the State of New Jersey shall be only by a license issued after examination by a Board of nine Examiners, five of whom shall be of what is known as the regular school, three of what is known as the homœopathic school and one of what is known as the eclectic school.

This Board is to be appointed by the Governor, each member to serve for three years, and three going out of office each year. The Board is to meet regularly four times a year and as much oftener as may be necessary.

To pass the Board an applicant must secure the approval of every member of it. Applicants for license are divided into three classes: 1. Graduates of regularly incorporated medical schools, who have graduated not less than five years before the application; 2. All other graduates of such schools, and 3. Medical students taking a regular course of medical instruction. Applicants of the first class shall submit to examination upon materia medica and therapeutics, obstetrics and gynecology, practice of medicine, surgery and surgical anatomy; those of the second and third classes shall submit to examination upon anatomy, physiology, chemistry, pathology, materia medica and therapeutics, histology, hygiene, practice of medicine, surgery, obstetrics and gynecology, diseases of the eye and ear, medical jurisprudence and such other branches as the Board may deem advisable. The questions for examination of applicants of the first and second classes shall be the same in branches common to both. The law provides that after January 1, 1892, the Board shall not license applicants of the second and third classes until satisfactory proof is furnished that the applicant has studied medicine and surgery three years, is of good moral character and over twenty-one years of age. It is provided that students who shall have studied medicine and surgery at least two years, can be examined upon anatomy, physiology, chemistry, histology and pathology and materia medica and therapeutics; and if their examination is satisfactory to all the members of said Board, it may issue a certificate that the applicant has passed a final examination in these branches, and such certificate, if presented by the applicant when he or she shall make application for license to practice, shall be accepted by said Board in lieu of an examination in those branches.

Applicants intending to practice according to any exclusive system may be examined in materia medica and therapeutics by the representative or representatives of the school to which he claims to belong. To pass the examination an applicant must have the unanimous vote of the Board. Examination papers shall be kept and filed. Rejected applicants shall have the right to appeal to the Governor, who may appoint a Committee of Review consisting of three members, one from each school of medicine, who shall examine the examination papers of each such applicant, and from them determine whether a license should issue; and their decision shall be final. If said commission, by an unanimous vote, reverse the determination of the Board, the Board shall thereupon issue a license to the applicant. The expense of an appeal of this kind shall be borne by the applicant. The fee for the usual examination is to be fifteen dollars for each applicant of the first or second class and twenty dollars for each applicant of the third class.

The law confers upon the Board the right, by unanimous vote, to refuse to grant, or to revoke a license for the following causes: Persistent inebriety, the practice of criminal abortion, conviction of crime involving moral turpitude, or for publicly advertising special ability to treat or cure diseases which, in the opinion of the Board, it is impossible to cure.

The law provides that those who secure license shall register in the county in which they began to practice or any other to which they may remove.

The law exempts from the necessity of examination all persons already entitled to practice in New Jersey, commissioned surgeons of the United States army, navy or marine hospital service, regularly licensed physicians or surgeons in actual consultation from other States or Territories, and regularly licensed physicians or surgeons actually called from other States or Territories to attend cases in New Jersey.

Treatment of Stricture of the Urethra.

Dr. W. L. Axford, of Chicago, says, in the *Medical Standard*, June, 1890:

The ordinary stricture of the urethra is a cicatricial band, the result of inflammation of the submucous areolar tissue, extending more or less completely around the canal and of greater or less calibre, according to age and rapidity of contraction. There are at present four different methods of treatment in good repute, viz.: Gradual dilatation, electrolysis (so-called), divulsion and urethrotomy, internal or external, according to the location of the stricture. Resorting to dilatation or electrolysis, the canal is gradually restored to its natural size by absorption of a portion of the stricture tissue each time the instrument is used. By divulsion or urethrotomy, the calibre of the urethra is at once restored, the wound is not allowed to close and absorption of the stricture follows. We can, on this basis, divide our four methods into two classes.

It has, for many years, been Dr. Axford's opinion that the second class of methods, particularly internal urethrotomy, gives the most satisfactory and permanent result. To this conclusion, based on clinical experience, he adds the weight of some philosophical inquiries which tend to strengthen the position taken. As above remarked, stricture of the urethra is a band of cicatricial tissue about the canal, which does eventually exactly what all such tissues do, contracts. This contraction becoming a source of annoyance, either by causing gleet if of large calibre, or by interfering with the free flow of urine if narrow, must be removed.

In the case of a stricture of the pendulous urethra, the result of a gonorrhœa, the connective tissue which underlies the urethral mucous membrane has, at certain points, become inflamed, leucocytes have infiltrated it, and in certain places, organization has taken place; the granulation tissue has developed into a fibrillated structure, the newly-formed capillaries have disappeared, and what was formerly fibrous tissue has been converted into a dense structure, the prominent characteristic of which is contraction. In order to get rid of this new tissue it must in some way be penetrated by leucocytes, softened and absorbed. In fact, the process of formation must be reversed, and absorption or resolution of the inflammatory mass must be secured in place of organization. The usual explanation, that the pressure of the sound causes absorption, is simply absurd. We can easily understand how constant pressure on a mass of tissue might eventually, by shutting off a portion of its blood supply, cause its atrophy, or even disappearance; but to assume that the pressure of the sound or bougie for a few minutes twice per week causes absorption of a non-vascular mass like stricture is, Dr. Axford thinks, absurd. It might force the fibres closer together while *in situ*, but nothing more. Again, it is not necessary to leave the sound in for a few minutes. The stricture will disappear just as rapidly if the instrument be withdrawn as soon as its full size has passed the stricture. The explanation of this absorption which certainly does follow the use of the sound is this: The sound undoubtedly ruptures some of the fibres of the stricture and at the same time irritates or ruptures some of the small adjacent capillaries, and from them the leucocytes escape; the ruptured fibres of the stricture are now susceptible to their action and are invaded by them; a minute inflammatory process follows and a small portion of the stricture is absorbed. This process is repeated from time to time until eventually the entire mass is absorbed, or what is more probable, the major part of the band disappears. In support of these views, Dr. Axford quotes from the observations of Sir H. Thompson: At the first act of micturition after instrumentation, he says, the stream is increased in size, because of the mechanical effect of the sound; but after a few hours it is even smaller than before the operation. This he attributes to active congestion and spasm, but it seems plausible to think it is due to the escape of blood from small ruptured capillaries, or to an escape of leucocytes from irritated vessels and the invasion of the ruptured fibres of the stricture by these leucocytes, that is, to a small inflammation. After a few days the stricture is found permanently enlarged—resolution and absorption have occurred.

So far as electrolysis, so-called, is concerned, Dr. Axford has never been able to satisfy himself that any current, which could be used with safety in the urethra, could have any effect in so dense and unyielding material as stricture tissue. It is possible that the current may add to the effect of the sound a certain stimulating action and thus lead to a greater aggregation of leucocytes at the site of the stricture, perhaps in this

way being of some value. Therefore he has classed electrolysis with gradual dilatation as being simply a modification.

The results from dilatation vary. There are strictures so tough and resilient that the sound has no effect on them whatever. These are not necessarily those extremely hard strictures but those which combine elasticity and toughness. In these cases no fibres are ruptured and no field is opened for the work of the leucocytes. These can be cured by cutting. Otis says that in order to cure a stricture you must cut clear through it, and I believe that if you would cure a stricture by dilatation you must in time rupture every fibre of it, and herein lies the uncertainty as to permanent cure, which surely is the great objection to dilatation. Dr. Axford's experience leads him to believe that dilation cures only in recent strictures, and very recent at that; those in which organization is not yet complete and where all the capillaries have not yet disappeared from the cicatrix; here there would be a chance for leucocytes thoroughly to permeate the entire mass, and cure would be expected to follow.

Of the second class he does not favor divulsion, because it is an unnecessarily rough procedure, and has no advantages over dilating urethrotomy. In this operation we have the best method, both practically and theoretically, before the profession. Practically it is safe, quickly done, and its after-treatment short; cure results, he believes, in every case where the stricture is thoroughly divided; that is, where every fibre is cut through. The dilatation before cutting permits you to put every fibre on the stretch and place it in the best condition to come in contact with the knife. If, after cutting, you screw up your instrument (the knife concealed) and find no resistance, you may be pretty sure that your stricture will be permanently cured. If resistance be encountered, or if with the acorn-pointed sound one can find any point giving the impression that division has not been perfect, he believes the stricture will invariably return. The rationale of this is very simple. The fibres being all divided, the entire mass is thus open to the action of the leucocytes, which escape in quantities from the cut vessels. The stricture has been placed in the best possible condition for them to do their work. In order that the two ends may not grow together, and thus again close up the field of work, the stricture is kept open from time to time. Dr. Axford has always noticed one thing in the after-treatment, and that is this: Where there is a good, sharp inflammatory reaction, and the urethra is sore and cordy for a couple of weeks after the operation, that is, where plenty of leucocytes are present, that the result is pretty sure to be good.

Diphtheria in Michigan.

Dr. Henry B. Baker, Secretary of the State Board of Health of Michigan, writes, under date of July 22, that the outbreak of dangerous disease which has prevailed in Otsego and Montmorency counties, Michigan, since last spring and which local physicians said was not diphtheria, permitting two of the corpses to be sent to Lapeer county where a case of diphtheria occurred in a person who viewed the remains, has been investigated by the State Board of Health, the investigation having been requested by a union meeting of the boards of health of three townships in those counties.

Prof. Vaughan, of the University of Michigan, a member of the State Board of Health, made the investigation. He has also made bacteriological examination of the membrane from the throats of two of the patients, and has found and propagated the micro-organisms which are believed to be peculiar to diphtheria. This species of micro-organism is known as Löffler's bacillus. Prof. Vaughan says: "The bacilli have been compared with the Löffler bacillus, which I had obtained in the laboratory of Dr. Koch at Berlin, and the identity of the two cannot be questioned." He reports the disease to be unmistakably diphtheria, as proved by symptoms, physical signs, throat paralysis, etc.; and the diagnosis is sustained by the bacteriological examination. It is now hoped and expected that the local authorities will take thorough measures to stamp out the disease.

A Bad Kind of Quack.

The *Alabama Medical and Surgical Age*, June, 1890, in an editorial describes a specially offensive sort of quack with which the South seems to be afflicted. The *Age* says: The medical journals have devoted considerable space, first and last, to the discussion of "quack doctors" and exposing their many unprofessional deeds. From our stand-

point one of the most contemptible professional wretches known to the medical profession in America is the quack—we care not what his attainments may be—who comes South and locates in one of our prosperous cities, ignores all professional dignity, and sets out to "clean up the field" by visiting the people from house to house and giving his name, and telling them of his wonderful skill as a healer of all diseases, and assuring them that his charges are much less than they have been accustomed to paying; and then, to further his ungentlemanly and unprofessional schemes, visits every negro at his house and work-shop, introducing himself as Dr. "So-and-So," not forgetting to be specially polite, therefore addresses his friend in black as "Mr. and Mrs. Jones." We know of a medical examining board in Alabama that is lamenting that they let a character of this description pass through their hands "by the skin of his teeth." We believe in liberty and respect a physician who has energy and pluck to succeed in his chosen profession, but the man, claiming any degree of respectability, who would resort to such nefarious means to secure a practice is too contemptible for notice and is not worthy of recognition by the profession of America.

Injuries to the Penis in Coitus.

The *Medical Standard*, July, 1890, says that peculiarities of wounds after coitus in females have been much discussed, but those occurring in males have received but little attention although they throw some light on certain vexed questions as to the method of venereal infection. Reports of penis injuries are rare, albeit it is very probable many quickly-healing chancroids are not venereal but traumatic. Dr. A. A. Newsky, of Gorakhovetz, Russia, in *Vratch*, No. 48, 1889, who has recently discussed this subject, has been able to find only two cases in the literature, both reported by Americans. He says that Dr. Veazie has reported in the *New Orleans Medical and Surgical Journal*, 1884, a case of complete fracture of the penis and that Dr. F. Y. Davis has reported in the *Medical News*, 1885, a case where a gentleman suddenly detected his coachman copulating with a servant. Both made frantic efforts to escape, but were unable to separate. The man was over six feet high and brawny. The woman was small and did not weigh over ninety pounds. After several attempts by bystanders to separate them by methods used with dogs, Dr. Davis was sent for, who found the man standing up with the woman in his arms; his penis locked in her vagina. Dr. Davis, after local applications of ice, chloroformed the woman and released the penis, which remained in a state of priapism for several hours. It was swollen, livid and sore for days.

Dr. Hulke, of London, has reported in the *Lancet*, Feb. 18, 1888, a case in which a deeply intoxicated thirty-four-year-old man, while copulating with his wife, sprained his penis, lacerating the left crus, which resulted in inflammation thereof and long-continued priapism. Dr. Newsky's case was that of a twenty-five-year-old man, who, while copulating with his wife, felt a sharp pain in the penis, which, on withdrawal, bled profusely from a laceration. Within half an hour the patient bled a cupful of blood despite cold applications. Dr. Newsky found a deep, widely-gaping, irregular laceration with everted tumefied edges, more than an inch long, running transversely across the penile posterior lower aspect about an inch from the prepuce, which was unusually long and tight and had but a very narrow orifice. The wound was washed out with a boric acid lotion, united by silk sutures and healed in six days by first intention. Dr. Newsky believed that during copulation the patient's long phymotic prepuce formed a terminal fold looking upward, which led to an extreme stretching of the skin on the lower surface of the organ, the tissues giving way at the point of maximal distention under violent pressure of the glands. Dr. Davis was of opinion that, in his case, a spasm of the sphincter at the vagina orifice had nipped the penis and prevented an outflow of blood. A similar condition seems to have occurred in the cases of Drs. Veazie and Hulke, and very probably in that of Dr. Newsky also. This spasm is a normal phenomenon of coitus in some lower animals and hence likely to reappear with females of bad heredity. Prostitutes are especially likely to have such sexual reversions to conditions normal among lower animals, since, as Dr. Pauline Tarnowsky has shown, degenerate types are frequent among them. Sphincter cunni spasms are hence likely to result in producing penile excoriations which may be mistaken for the results of venereal infection. Dr. H. N. Moyer, of Chicago, has observed a case in which livid penis excoriations from traumatism, during coitus,

were regarded as venereal ulcers. These excoriations, in all probability, are often starting points for venereal infection.

Accident with Weigert's Apparatus.

The *Druggists' Circular*, July, 1890, reports the case of a woman, in New York, who came to her death through a singular accident, occurring during the use of Weigert's superheated air inhaler.

The apparatus employed consists of a metal cylinder mounted over an alcohol lamp. Within the cylinder is an inner cylinder, there being a space between the two. The bottom of the outer cylinder is perforated for the admission of heat and air, and from the top of the cylinder is a metal tube about two feet long and an inch in diameter, with a hard rubber mouth-piece for inhalation. In this tube is a thermometer to indicate the temperature of the air passing through.

The patient lighted the lamp, and when the thermometer indicated the temperature at which she was in the habit of inhaling the heated air she commenced inhaling. Almost immediately she felt an irritation of the throat and mouth. She thought that the tube had become clogged, and when she removed the mouth-piece she noticed a deposit of gray grains which she thought was dust. She cleaned it out and proceeded with the inhalation. In a few minutes she felt a burning sensation in her throat and chest and was attacked with nausea and vomiting. A physician was sent for, and he pronounced the patient to be suffering from mercurial poisoning. On examining the apparatus it was found that the bulb of the thermometer was broken, and the mercury which had become volatilized by the heat had been inhaled, causing acute inflammation of the respiratory tract and stomach.

Nothwithstanding the utmost efforts of the physician the patient died the next day.

Bichloride Mercury for Granular Lids.

The favorable reports which from time to time have appeared in regard to the value of strong solutions of bichloride of mercury in the treatment of granular lids have led to an extensive trial of this remedy in the eye wards of the Philadelphia Hospital. The results are reported by Dr. G. E. de Schweinitz, in the *University Medical Magazine*, July, 1890.

The method adopted was as follows: Every alternate day the everted lids are carefully touched with a solution of bichloride of mercury, 1–300 or 1–120, according to the size of the granulations, while three times a day the conjunctival cul de sac is irrigated with a warm solution of the same drug, 1–7000. No other medication is employed. The results were almost uniformly favorable. In no single instance did the disease become aggravated; in a few cases it apparently underwent no modification, while in the vast majority, after four or five applications of the character described, there was increased comfort, lessening in the size of the granulations, dissipation of the discharge, and not infrequently amelioration of pannus, if this was present. Perhaps the strongest testimony in favor of this application was that given by most of the patients themselves, all of the chronic cases having had all manner of local astringents applied to their everted lids. Their testimony is practically unanimous that this has given the greatest comfort. It is a painful application, and in sensitive patients the eyes may be cocainized. In most of the instances, however, this precaution was not deemed necessary. These observations are based upon the experience of about thirty cases.

Salol Ointment for Impetigo and Eczema.

The *Bulletin Médical*, June 4, 1890, says that Dr. Saalfeld has had good results with salol ointment in the treatment of impetigo contagiosa and eczema, accompanied by abundant suppuration. It was also efficacious in a case of parasitic sycosis. The formula used was as follows:

℞	Carbonate of potash	1 part
	Olive oil	10 parts
	Oxide of zinc	15 "
	Starch	15 "
	Salol	5 "
	Sulphur	6 "
	Lanolin	100 "

Mix.

Climatological Association.

The seventh meeting of the American Climatological Association will be held at Denver, Col., September 2–5, and it has been arranged that it shall be followed by a tour of Colorado under peculiarly favorable auspices. The party will be conducted by

Mr. T. P. Vaille, 114 South 4th street, Philadelphia, South-eastern Passenger Agent of the C. & N. W. Railway. Particulars in regard to rates may be obtained from Mr. Vaille, and the attendance of physicians interested in climatology is specially requested by the Association.

A Case of Hermaphroditism.

Dr. Debout reported the following case of hermaphroditism to the Medical Society of Rouen, which is quoted in the *Journal des Maladies Cutanées*, May, 1890. A young girl consulted him, complaining of a swelling in her groin which occasionally caused her such pain as to unfit her for work. Thinking, of course, that the trouble was a hernia, Dr. Debout proceeded to make an examination. To his surprise he found the pubes thickly covered with hair, and in place of the clitoris, a small well-formed penis about one inch and a quarter in length, and of the thickness of a pen-holder. The gland was perfectly formed, but imperforate. Below this was a nearly circular opening, about the size of a quarter of a dollar, through which the patient passed urine. Dr. Debout noticed, at the same time, that the thighs and legs were very hairy. The face of the patient was by no means feminine, the features being strong, and covered with hair, which the patient sought to hide by shaving. Although sixteen years old, there had been no appearance of menstruation. The hips were flat, and there was no fulness of the breasts. In the right groin there was a tumor about the size of a nut, which had existed in its present size since the patient's thirteenth year, and which had every appearance of being a testicle. There was no similar swelling in the opposite groin. Dr. Debout attempted to pass a bougie through the opening into the bladder, but the patient was so sensitive that he was forced to desist. No rectal examination for the uterus was made. The patient was, however, clearly a male, suffering with hypospadia, arrested development of the penis, and having a testicle enclosed in the inguinal region.

In order to relieve the patient the application of a truss, such as used for hernia, was out of the question, since any pressure on the swelling caused great pain. Dr. Debout therefore constructed a truss, the pad of which had a concave surface which covered the testicle, and which was worn with great comfort and relief to the patient.

To Preserve Ice.

The following method for preserving ice in a pitcher will not come amiss to those who need it for use all night or in the sick room. Fill the pitcher with ice and water and set it on the centre of a piece of paper; then gather the paper up together at the top and bring the ends tightly together, placing a strong rubber band around them to hold it close, so as to exclude the air. A pitcher of ice water treated in this manner has been known to stand over night with scarcely a perceptible melting of the ice.

NEWS.

—It is reported again that Pasteur is to come to this country towards the close of this year or the beginning of next.

—Dr. Bushrod W. James, of Philadelphia, is recovering at Idaho Springs from an accident while on horseback riding up the Virginia Cañon.

—Dr. G. W. Groff, for thirty-six years a practicing physician at Landisville, Pa., died of a paralytic stroke July 18, at the age of 58 years.

—Dr. Hugo Engel, of Philadelphia, has been sued by a bank in this city for about six hundred dollars, due on a bank account overdrawn some time last May.

—It was reported from Cairo, July 23, that small-pox was ravaging the villages between Mansouray and Zagazig. The populations were said to be almost decimated.

—A birth of triplets was reported from Norristown, Pa., July 20. There were two boys and a girl. The infants were all well formed, and with the mother were quite hearty.

—At a meeting of the Berlin Municipal Council, June 12, it was decided that a convalescent home for lying-in women should be established at the expense of the city. A sum of $35,000 was voted for the purpose.

—William C. Foulks, a dentist of Philadelphia, was held July 21 to answer charges of forgery and obtaining goods under false pretences from John Wanamaker. It has been asserted and denied that Dr. Foulks was insane.

—Bethlehem and West Bethlehem, Pa., were, on July 23, reported to have an epidemic that is puzzling the doctors. Some physicians thought it identical with break-bone fever. The cases were not numerous or grave.

—It is claimed that the possibility of inoculating cattle against Texas fever has been established by the experiments of the State Veterinarian of Missouri, though the certainty of preventing the destructive disease is not established.

—Dr. Jacob Roberts, a graduate of the University of Pennsylvania in 1862, died July 20, at his residence in Philadelphia. He was stricken with paralysis about eight weeks before, and had not left his home since that time. He was in his fifty-fourth year.

—In 1889, in the State of New York, says the report of the Railroad Commission, the number of employés killed while in the act of coupling and uncoupling cars was 27, and the number injured 364; in the previous year the killed were 26 and the injured 480.

—The National Women's Health Association of America was organized in Philadelphia July 23, with Caroline Dodson, M. D., as President. Its object is to bring the laity and the medical profession into closer relations by the discussion of health topics.

—About 350 Philadelphia physicians were registered at the Prothonotary's office in Camden before the new medical practice law went into effect—that is, noon of July 4. One hundred and seventy-five were registered on July 3, and four on the morning of the fourth.

—It is reported that on July 21, a Dr. Gustav P. Gehring, said to be of Philadelphia, and a Dr. Samuel R. Garwood, said to be of Pomona, N. J., endeavored to settle a discussion by a regular fist fight. The names of these persons are not in the directories of physicians in this office.

—Dr. Salmon, Chief of the Bureau of Animal Industry, Drs. W. H. Wray, A. D. Melorn and J. F. Ryder sailed July 26, for England, with authority from the Department of Agriculture to investigate charges that cattle imported into Great Britain from the United States are affected with contagious pleuro-pneumonia, and to make arrangements for the examination of cattle as they are landed from American ports.

—The Dominion Health Department has received a report from one of its physicians in regard to the leprosy on Anticosti Island. As a result of the inquiries he has made, he finds that some years ago several families removed to Anticosti from Caraquet, New Brunswick, where leprosy was found to prevail, and these are likely to be responsible for the alleged existence of the disease on the island. The family affected consisted of fourteen persons. Prompt measures will be taken to segregate these persons.

—The officers of the Kensington Hospital for Women, in Philadelphia, are looking for a site for a new hospital. Before this can be bought it is necessary to raise $20,000; and $10,000 has been subscribed by a number of interested people. Dr. Howard Kelly, formerly surgeon to the Hospital, and now Professor of Gynecology at Johns Hopkins Hospital, has contributed $1,000. The work at present is being carried on in two adjoining dwellings, which are not only too small, but also do not offer proper accommodations.

—From Ottowa, Ont., it was reported July 22, that a number of miraculous cures were taking place at the shrine of Ste. Anne De Beaupre in connection with a pilgrimage recently organized by Abbé Lesage. A young French-Canadian lady, who was weak and crippled, suddenly felt her strength return, while partaking of the communion, and threw away her crutches. A woman thirty-three years old who had been for two years paralyzed, was carried into the sanctuary, where, during the communion, she arose and walked through the church and seemed restored to perfect health.

OBITUARY.

JOHN D. GRISCOM, M. D.

On July 23, Dr. John D. Griscom, one of the oldest Fellows of the College of Physicians, of Philadelphia, died at his residence at Haverford College, near Philadelphia, at the advanced age of eighty-one years.

Dr. Griscom was the son of William Griscom. He was descended from a long line of Griscoms, and it is said that the founder of the family came to this country in 1680, and was one of the sturdy settlers who left their impress on the succeeding generations.

He was born in Philadelphia March 25, 1809. He was educated at the University of Pennsylvania. He was one of the oldest living Fellows of the College of Physicians in Philadelphia, to which he was elected in 1842, and for many years was chairman of the Obstetrical Committee. He was married in 1839 to Margaret W. Acton, of Salem, N. J., who survives him. He also leaves two sons.

MEDICAL AND SURGICAL REPORTER

No. 1745. PHILADELPHIA, AUGUST 9, 1890. Vol. LXIII.—No. 6.

Clinical Lecture.

PUERPERAL CONVALESCENCE.[1]

BY THEOPHILUS PARVIN, M, D.,

PROFESSOR OF OBSTETRICS AND OF THE DISEASES OF WOMEN AND CHILDREN IN THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

The patient now presented to you was delivered four weeks ago of a living child, and it has depended upon her alone for its nourishment. She was received here a day or two ago, her labor having been in a maternity in the city. Two weeks after the labor she was discharged, going out to work for a living. Her strength proved insufficient for her efforts and, therefore, weak and exhausted, she has been brought to the Philadelphia Hospital. Her discharge from a maternity, one that appeals to the benevolent for a support and also seeks legislative bounty, so soon after labor, when the red flow had not ceased, especially as she had no home and was compelled to work for a living, was a mistake, not to use any word of condemnation.

Let us study for a few minutes the subject of puerperal convalescence, and knowing what ought to be the condition of a woman four weeks after labor, let us compare it with the state in which this patient is. To convalesce is to grow strong, and is usually applied to recovering from a disease; but let us not consider pregnancy and labor as a disease; for ordinarily they are physiological conditions in all respects, and the convalescence of the puerperal woman is not recovery from sickness, but restoration of strength after exhaustion; it is a becoming *valid*, after having been *in-valid*, the words being used in their etymological sense.

During labor there is an exaltation of various functions; certain eliminating organs have their action quickened; great physical force is expended and the pulse is increased in frequency and the temperature rises. The labor over, a depressed condition follows; certain vital actions become slower that have been hurried to meet the great emergency. In no function is this more strikingly shown than in that of the heart. This organ, with normally 70 or 75 pulsations a minute, having been for hours beating 90 or 100, or even oftener, now slows its action until it falls below the normal, descending to 60, 50, 40 or even to 36 per minute. The slowing of the pulse, which continues for two weeks or more, has been variously explained. It has been attributed to absorption of fat from the degeneration of the muscular tissue of the uterus; to the complete rest of body and mind; to the lessened work of the heart; to changes of blood-pressure—according to some increased but according to others decreased — and to various other causes. But really the more one studies the different causes to which it has been ascribed, the more one finds that none of them is quite satisfactory. Possibly it is more to the purpose to say that after such great and prolonged activity, there should be so far as possible rest for the heart, that it is both natural and necessary such rest should occur; and thus we arrive at a final cause, even if we cannot satisfactorily determine the active cause.

The most striking changes belonging to the puerperal period occur in the uterus. This organ, which at the end of labor weighed nearly two pounds and a quarter, when a week has expired weighs only one pound, and at two weeks a little more than twelve ounces; while in about six weeks it is restored nearly to the size it had before pregnancy. This change is known as involution—the uterus was evolved during pregnancy, and now it is involved during the puerperal state. Uterine diminution in size

[1] Delivered at the Philadelphia Hospital.

and weight of the uterus is effected in part by a discharge called the lochia. The lochia during the first few days are composed entirely of blood; but in three or four days the blood has notably lessened and the discharge is pale. Prolongation of the red flow after four or five days is not normal, nor is its return after having ceased. During the first eight days the lochial discharge in a woman who nurses her child amounts to nearly 40 ounces; but if she does not nurse, it is between 60 and 70 ounces. The flow usually disappears within three weeks. This discharge contributes to the diminution of the uterus. But the chief factors in uterine involution are found in uterine contractions and uterine retraction, thus diminishing the blood supply, and atrophy of the muscular and connective tissue. It has been taught that there was fatty degeneration of the muscle fibres, that this fat is absorbed into the blood and new fibres are developed, so that during the puerperium a woman loses her old uterus, and has a new one created. But the more recent study of Sänger proves that not a single muscular fibre undergoes fatty degeneration; each is simply reduced to its former size and form. Still more recently Dittrich has indirectly confirmed Sänger's observations as to the process of involution in the normal puerperal uterus.

In nine or ten days the uterus has ceased to be an abdominal, and has become again a pelvic organ. So there is a foundation for the popular belief that a woman may get up the ninth day in the fact just mentioned; nevertheless this practice cannot be advised; certainly such early rising ought not to be permitted if the woman has a red discharge. The uterus at the end of two weeks measures four inches in length, and from this time on the process of uterine involution is much slower. However, it is generally completed in from six to eight weeks.

After this brief sketch of some of the most important points in puerperal convalescence, let us consider the history and condition of this patient. She had a labor lasting fifteen hours, and ending spontaneously with the birth of a healthy child, and the child has remained well. She got up at the end of a week, and, as has been previously stated, left the maternity at the end of the second week, though the red lochia continued all this time. She then went to work, and worked until she could work no longer, and now comes to this hospital for cure. You observe how pale she is. Her pulse is weak and frequent. The uterus can be felt reaching two inches above the pubic symphysis, and she has a constant red flow. You may call the condition self-involution of the uterus. There has been a failure not only in the process of diminution in the size of the muscle fibres, but also in the restoration of the mucous membrane largely detached in labor—complete restoration requires several weeks—and I think the hemorrhagic discharge she has may in part be ascribed to imperfect regeneration of this membrane. You may build banks of loose earth along a stream to prevent its overflow, but if the pressure of the water be strong before the banks have become solid, before the sod has grown and its fibres have spread themselves in various directions, seeking nourishment, and become firmly knit together, the banks of the river will give way. In like manner the blood-vessels of the inner portion of the uterus, unprotected by perfect mucous membrane and swollen with blood, have the walls of their capillaries easily ruptured, and hemorrhage results.

Now in the treatment of this case, rest in bed is first; next, good food; third, hot water vaginal injections; and then, medicines to cause uterine retraction, and medicines to improve the condition of the blood. She should have at least once a day—twice would probably be better—a copious vaginal injection of water as hot as can be borne, one per cent. of creolin, or some other antiseptic being added. To stimulate the muscular activity of the uterus, ergot and nux vomica may be used conjointly. As a tonic I am very partial in many cases to what is known as the elixir of phosphate of iron, quinine and strychnia. Not only will nutritious food be directed, but especially that which will furnish a sufficient supply of milk to her child, such as milk, chocolate, and animal broths.

Another point in regard to the case is suggested by this reference to the child. You may be asked how soon after birth the infant can be taken out; and your answer will be that in winter this ought not to be until it is at least one month old. You remember this infant was taken out two weeks after birth; and you see that this was an error—the mother's being discharged so soon after her delivery was thus a double error.

In general as to the management of the puerperal woman, you would not permit her to sit up until two weeks after labor, and

then only for a short time; three weeks will be soon enough for her to begin to walk, and usually the walk will be restricted to her room; at the end of a month, her condition being good, she is free to gradually resume her household duties, and at the end of six weeks she goes out. Of course a strong, healthy woman living in the country may without harm shorten some of these periods, but there is more danger of getting up too soon than of remaining in bed too long. One thing ought to be insisted upon, that is as long as the lochia are red, a woman ought not to be up, still less may she be permitted to work.

COMMUNICATIONS.

TREATMENT OF HAY-ASTHMA.

BY JOHN AULDE, M. D.,

MEMBER OF THE AMERICAN MEDICAL ASSOCIATION, OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, ETC.

There are so many factors which enter into the morbid complexus of that disease hitherto called hay-asthma, and so many theories have been discarded, that it would be a waste of time to review the different ideas which have been held in regard to its pathology. As I do not care to trench upon its surgical treatment, it will be sufficient for the purposes of this paper to call attention to some of the causative influences and conditions incident to its development which have not thus far received due recognition, either at the hands of the general practitioner or the specialist. In order to simplify matters, and place the subject before the profession in the proper light, I have subdivided my remarks into sections which may be conveniently headed, respectively, dietetic, climatic and medicinal treatment; and it may be well here to suggest that in many instances, when the first two receive attention in season, the medicinal treatment will amount to but a trifle.

Dietetic.—Few physicians in this section of the country, who have been in active practice for the past ten years, have failed to notice the rapidly increasing number of persons who suffer from acidity of the stomach. Children rarely complain of this trouble until they have grown up to be young men and women; but after the age of twenty this is almost an universal complaint. Can it be that the diet bears an etiological relation to the development of this disease, which is all too common? So many persons are now affected at certain seasons of the year that it has ceased to be fashionable, but it reappears at the usual time just the same.

Possibly a little reflection may throw some light upon this occult problem, and with a view to put myself in the reader's place, I will draw upon my own experience in the employment of the digestive ferments. When a case of indigestion presents itself, the question arises as to the location of the cause. The tongue is examined and the patient questioned as to the time of the appearance of the symptoms, and while it is a fact that intestinal is nearly always associated with stomach trouble, we conclude from the history of the case, and from the complaints of the patient, whether pepsin or pancreatin is indicated. This is merely inserted to illustrate a principle, and is not intended by any means to convey the idea that pepsin and pancreatin are the only remedies indicated for indigestion. While the *furore* for the indiscriminate use of pepsin has somewhat subsided, the value of pancreatin has not yet been sufficiently appreciated. The fact remains, however, that most, if not all, of those who are subject to hay-fever or hay-asthma, are sufferers from some of the manifestations of indigestion, and are more or less subject to acidity, with all that this term implies.

Those who have doubts in regard to these propositions will readily find among their patients a suitable subject for experimentation. Let it be some poor dyspeptic cripple who has been a regular attendant upon the doctor for a year or two, but who, while taking "barrels of medicine," has failed to receive "directions" in regard to diet. Let it be assumed, for example, that he subsists upon a mixed diet and that he daily consumes large quantities of potatoes and other starchy foods, and that he is fond of sweets, and in some instances, where the stomach will tolerate it, unusually large amounts of fat are eaten. Such a patient will complain of vague and indescribable pains, with insomnia, drowsiness in daytime, indigestion, lack of appetite, a want of ambition, constipation and probably a hundred other things, and last of all, hay-asthma in autumn. Such persons, unfortunately, are not willing to accept the directions of legitimate physicians, but become the prey of quacks.

True, temporary relief is sometimes afforded, but too often this benefit is secured at the expense of the vital forces, owing to the poisonous and narcotic effects of the drugs administered. Treatment of this kind is too often but a species of "double-quick" to the cemetery, instead of remaining in the ranks and following the regular line of march.

The treatment of the patient above described will consist in correcting the derangement of the digestion, and where the disorder has continued for a long time and complications exist, the most satisfactory plan will be found in the total restriction of the foods which are contra-indicated. The patient must be immediately restricted to a meat diet, with a little toast and the succulent vegetables in moderation. The hours for meals must be regulated, out-door exercise insisted upon, and at least half a pint of hot water drunk every morning half an hour before breakfast. If the water is unpalatable or causes nausea, a little salt may be added with advantage.

Space does not permit reference to the conditions which the ingestion of starchy, saccharine and fatty foods combine to produce, nor do I care at the present time to offer any suggestions in relation to the views which have been advocated by Salisbury, and Cutter, his disciple, in relation to alimentation and disease. There is sufficient evidence, I believe, to account for the production of rheumatism, and for the development of typhoid fever, and there cannot long remain doubt in the minds of thoughtful men that hay-asthma is closely related in some way to our methods of living.

Climatic.—But little need be said in regard to the advantages of climatic treatment of hay-asthma, but as I am convinced that much of this trouble is due to artificial methods of life, which are the necessary concomitants of our modern civilization, it must be evident that only temporary benefits will be derived from a few week's sojourn in the mountains. The remarkably prompt effects which follow a change in climate are sufficient to show that something besides the nervous element enters into the disease. The pure air of the country has a peculiarly stimulating action upon the functions of excretion, and it is reasonable to assume that the oxygen-carrying capacity of the red corpuscles is enhanced. While the atmosphere of the sea-shore is laden with life-giving properties that cause improvement in those who do not suffer from the effects of acidity, it is much less efficient as a restorative and invigorator than the dry, rarified atmosphere of mountain resorts; statements which find abundance of proof in the experience of nearly all suffering from attacks of spasmodic asthma in the early autumn. On the other hand, the air of cities and all large towns is constantly charged with objectionable gases and foul odors, to say nothing of the germs of various diseases which are ever ready to find a nidus in those tissues which, through depression of the vital forces, have themselves become depressed below par.

Medicinal.—The medicinal treatment naturally divides itself into local and internal. Both should be conducted with a view to improve the condition of the system, and generally speaking, those agents which have a depressing effect will be contra-indicated.

Locally, the treatment must be conducted with the object of destroying poisons, whatever their nature, and may be used in the form of a spray, or insufflation, to the mouth and nose, and as an inhalation when it is desired to reach the bronchial and pulmonary tissues. Antiseptics of various kinds have been used from time to time, but with the exception of oxygen preparations, as the peroxide of hydrogen, both the healthy and unhealthy tissues are affected, and as a consequence further depression ensues. At the present time, glycozone promises the best results, although I have met with very good results from the use of the peroxide in combination with glycerine. Cocaine is a remedy which at one time promised good results, owing to its property of obtunding the sensibility of the superficial nerves, and when combined with boric acid, the results have been moderately satisfactory. There is a serious objection, however, to the continued use of this remedy, because its too liberal employment produces marked derangement of the genital functions, an item which was lately brought to my attention by Dr. Gregory, of Yreka, California. Dr. Gregory is positive that through some occult influence cocaine freely used by insufflation will ultimately cause impotence in the male.

The free use of astringents is certainly not advisable, if we assume that the congestion of the mucous surfaces is an indication of the faulty action of the emunctories of the upper air passages, and whatever may be gained will be at the expense of the general system. By their use we destroy one of the most important functions, by which objec-

tionable matter is either thrown into the circulation or retained in the tissues, there to cause additional irritation. The truth of these propositions is fully borne out by the exhaustive chemical and microscopic examinations of Salisbury, and to his work the reader is referred.

As an aid to our local treatment, appropriate clothing must be insisted upon, and my impression is, that for the majority of patients who suffer from hay-asthma, nothing is superior to wool, but the garments worn next to the skin should not be too frequently changed. Suitable baths should be adopted instead of frequent changes of clothing, but caution is required that this measure be not overdone. Cold baths must not be taken at the close of the day, nor in fact at any time when the patient is tired. The shock produced is such that but few persons have the vitality necessary to secure the proper reaction, and thus the physical powers are further depressed. As a general rule, it will be found best to advise cold baths in the morning and hot or warm baths at night. Where the patient is feeble and suffers from derangements of digestion, the warm bath should be taken at bed-time, when it will be found an efficient factor in relieving insomnia. No full baths, hot or cold, can be safely advised where the result is a depression of the system; but in their stead, towel-baths may be suggested and suitable medication recommended to meet the demands of the economy.

Internally, the treatment should be decided upon with a view to meet several contingencies which are usually present. The need for digestive ferments having been estimated as intimated in the remarks upon dietetic management, it remains to point out some of the more prominent symptoms requiring the administration of drugs. It is well known that in all these cases there is pronounced derangement of the vascular tension. Various remedies, like ergot, the bromides, strychnine and caffeine, have been proposed to meet this difficulty, but I am disposed to think more favorably of the nitrites, especially nitroglycerin, which can be so conveniently used. Trinitrin is our most efficient remedy for the relief of acute attacks of spasmodic asthma, and may quickly be placed inside the lips or dropped upon the tongue in case of emergency. The effect of this drug administered at short intervals in small doses is, to secure a more equable distribution of the blood, and particularly is this noticeable with respect to the respiratory apparatus.

Another remedy which suggests itself on account of its influence upon the cerebral centres together with its recognized value in favoring the elimination of excrementitious materials, is rhus toxicodendron; but as usually employed, it is absolutely worthless. The preparations found in the market as a rule, are no more useful than so much alcohol in the treatment of any disorder, and it is for this reason that it has been so enthusiastically condemned. The tincture made from the fresh leaves growing in the shade and gathered during the period of efflorescence, in doses of half a drop three times daily will, in this class of cases, effect speedy and permanent effects. Grindelia robusta may be used for its sedative effect upon the respiratory tract, and will often be found beneficial when given alone in substantial doses. To increase the secretions of the intestinal glandular system, and overcome the constipation from which these patients suffer, there are two vegetable substances which command our attention, Berberis aquifolium and Xanthoxylum. But these drugs accomplish far more than the mere regulation of the bowels; they increase the discharge of bile, favor the elimination of excrementitious products by stimulating the action of the intestinal glands. It should be mentioned here that the tincture of prickly ash made with old Jamaica rum will be found most reliable when this remedy is indicated. In many portions of the country it is used by the laity for all manner of diseases; a quantity of the bark is purchased at the drug store, and is steeped in whiskey for some weeks, when it is ready for use. When there is reason to believe that an unhealthy condition of the mucous surfaces exists, and there is a temptation to administer digestive ferments, it will be advisable to test the value of arsenite of copper as an intestinal antiseptic and alterative.

The prescription, then, for the internal medication in case of hay-asthma, to meet the different complications, may be embraced in the following formula:

℞ Nitroglycerin (1 per cent. solution) . . . gtt. v
Tincture of rhus toxicodendron (recent) . gtt. xii
Extract of grindelia robusta . . . . . f℥iv
Extract of berberis aquifolium . . . . f℥i
Tincture of prickly ash (with Jamaica rum),
q. s. to make . . . . . f℥vi

M. S. Take two teaspoonfuls in a little water after meals.

The arsenite of copper should be given alone in the form of a tablet triturate, 1-100 grain just before eating, and will be found to produce a decided improvement in cases of indigestion due to the fermentation of food, accompanied by an increased secretion of mucus and an unhealthy condition of the alimentary canal.

1910 Arch Street, Philadelphia.

PREVENTION OF INFECTIOUS AND CONTAGIOUS DISEASE.[1]

BY CHARLES LEHLBACH, M. D.,
NEWARK, N. J.

In surgery the fact that infection, both systemic and local, may take place by the entrance of bacteria and that there are means of preventing such infection, has brought about marvelous results—marvelous to the superficial observer, but simple to the investigator. There is a revolt of late against antisepsis. By antisepsis we do not mean the irrigation of a wound with a 1-1,000 solution of the bichloride of mercury, or a similar washing out with a 1-100 solution of carbolic acid, or the dusting of iodoform over a wound surface; to be broader, we mean in surgical treatment the absolute exclusion of germs by any efficient means, that is, thorough *asepsis*. Whether we use corrosive sublimate, carbolic acid or warm water, is simply a question of surroundings. Up in the Rocky Mountains an operation might perhaps be attempted with thorough asepsis by employing warm water only. But in our large cities and hospitals, which are veritable breeding places for pathogenic germs, asepsis is impossible without antisepsis.

In cases of infectious and contagious diseases, it should be our endeavor to thoroughly disinfect the surroundings of the patient in such a manner that we can call the premises aseptic. This, as far as the physician is concerned, is in most cases impossible, there being many obstacles in the way to such thorough disinfection. There are cases in which the family is unwilling to go to the trouble of proper disinfection, and on the other hand cases in which the physician is silent in regard to the matter. There are cases in which sanitation cannot be had, and in a great many cases, although the physician is willing to instruct, the person to be instructed is unintelligent.

From all this it is evident that the burden of preventing the spread of infectious disease must fall upon a body selected indirectly by the community. Such bodies are so-called Boards of Health. In most States these Health Boards have full power to carry out whatever measures they think efficacious.

It is curious to notice the inconsistencies which crop out in some of our Health Boards. In Massachusetts, during a period of twenty years 3,000 persons died of small-pox. During this period the same methods were used to prevent small-pox that are *now* used to prevent diphtheria and scarlet fever. For the last fifteen years more vigorous means were instituted to check the spread of small-pox, and were so efficient that during that time—the past fifteen years—only nineteen cases occurred. But diphtheria and scarlet fever are allowed to go on in their deadly work. The same may be said of Newark. During the last two years, as far as I can ascertain, no cases of small-pox have occurred. But when we turn to the other infectious and contagious diseases, we find 1,596 cases of diphtheria reported, 769 cases of scarlet fever, and 624 cases of typhoid fever.

Moreover, with these figures we must bear in mind that a great many cases are not reported by physicians, for social and other reasons.

Of late a little red tag has been designated to be put up in a conspicious place on the premises in cases of diphtheria and scarlet fever. It informs the unwary wanderer that on the premises there is a case of one of these diseases, and when he reads this terrible news, he quickens his pace and hurries off. But what good is to be accomplished by this little red tag, so long as the Board of Health takes no measures to annihilate a scourge which is daily increasing? We have reason to believe that in the disease in question, infection takes place mainly by contact, and that aerial infection is not common, excepting perhaps during the desquamating stage in scarlet fever. But even in these cases, is not the poison contained in the fine scales of epidermis rapidly diluted to such an extent, that probably very little of it ever finds a proper nidus in others? Is it not folly to placard a house,

[1] Read before the Practitioners' Club of Newark, N. J.

informing the passer-by that somewhere on the premises there is a case of diphtheria or scarlet fever? If the patient were isolated by order of the Board of Health, and if proper disinfection were instituted during and after the illness, the danger of contagion would soon, as in the case of smallpox, become almost *nil.*

Under the existing circumstances, as soon as the patient is declared well or out of danger by the physician the red tag is removed and friends and relatives again enter the sick-room and run the risk of contracting or spreading the disease.

For centuries back, when epidemics occurred or when bad smells were created by decomposing material, it has been customary to incinerate, to fumigate, to wash and boil or to expose to the air and sunlight, supposed infected materials. But these means were empirical. It is only since we know something of the causes of most infectious diseases that we are enabled to battle with some hope of success. Incineration is always destructive to organic bodies. It remains the surest means of disinfection where articles containing germs of disease can, without great pecuniary or other loss to the owner, be destroyed. Fumigation is one of the oldest methods in use. By means of sulphur it is almost universally employed in the United States. As sulphur is so widely used it will be spoken of later, and the means of fumigation mentioned first. Chlorine gas is, as far as bacteria are concerned, an efficient disinfectant. It must be present, however, in the proportion of one volume of chlorine gas to one hundred volumes of moist air. But when this concentration is used, it is highly injurious to all fabrics of vegetable or animal origin, it also corrodes all metal fixtures which may be in the room, and so far as the future utility of the article to be disinfected is destroyed, chlorine is on a par with incineration. The latter method is therefore preferable when articles can be destroyed. The same may be said of bromine. Another point against the use of these disinfectants, is the dangerous effects to persons handling them.

The method in vogue with the Health Board of Newark is fumigation by means of sulphur. Perhaps the tenacity with which it sticks is due to an old tradition that in a certain mythical place it is used to disinfect souls. But this is a question for the psychologist rather than for the physician. The mode of using sulphur employed by those who erroneously advocate its use are the following:

Flowers of sulphur are placed in a large iron caldron thoroughly wet with alcohol or turpentine. The caldron, on an iron stand, is set in the middle of the room, the floor being protected by a layer of bricks from danger of ignition by the sulphur. Better still is to place the caldron and stand in a tub containing two or three inches of water. The sulphur is then melted and ignited. The room which is to be disinfected must be closed and all flues, windows, cracks, etc., sealed in such a way that none of the gas can escape. The room must be kept closed for a longer or shorter time. The least time which any authority allows is six hours (this is much too little), the longest is twenty-four hours. The object of adding the alcohol or turpentine is the production of moisture.

All investigators are very positive that the presence of moisture is essential to the germicidal action of sulphur. It is this fact which leads me to believe that when using sulphur as a disinfectant we are to all intents and purposes employing a solution, that is, a large quantity of moisture is generated laden with sulphurous acid-gas, and as it settles in different nooks and corners, its action will be germicidal *if it comes into contact with the bacteria, and if the solution is sufficiently strong to affect them.*

In the laboratory, under the *most advantageous conditions,* sulphurous-acid gas has been found to be detrimental to bacteria under certain conditions only. Koch, Wolffhügel and Sternberg (Koch's experiments were made nine years ago) have shown that when infectious material contains spores sulphur dioxide is of very little value in destroying them. This fact, together with the uncertainty of its practical application, is sufficient to condemn the use of sulphur as a disinfectant.

Surgeon Smart, in his *Hand-book for the Hospital Corps, U. S. A.*, instructs that three pounds of sulphur should be burned to every thousand cubic feet of space, and that the fumigation, in an absolutely closed room, should last twenty-four hours. The average sick-room contains about one thousand cubic feet if it is about ten feet, by ten, by ten—or thereabouts. In Newark during the past year there occurred 2,092 cases of diphtheria, scarlet fever and membranous croup. This would necessitate for disinfection the burning of 6,276 pounds of sulphur. There

were used since January 1 of this year 450 pounds, making on the average for the year about 1,200 pounds. I was informed in the office of the Board, that during the past year about 100 pounds were used per month, and that certainly not more than 2,000 pounds were used during the year. Such a quantity would be in the number of cases reported entirely inadequate, even with full faith in the efficacy of sulphur fumigation. Moreover, these calculations are for one room only. Adjacent rooms, containing sofas, tidies and other fancy articles are not considered.

In most cases the sulphur is left in the house by the inspector with instructions as to its use, and when he departs the sulphur is ignited, a horrible stench is created, and no good is accomplished.

Dr. H. C. Wood, in his work on *Materia Medica*, says: "Fumigation of an apartment should never be allowed to take the place of thorough disinfection of the walls and of all the furniture." It would be well to add, the thorough disinfection of bedding, clothing and all materials which have come into contact with the patient. The result of such disinfection would be such that we could dispense altogether with sulphur fumigation, that relic of past ignorance, and employ simpler means which we know to be effective.

The employment of antiseptic solutions is an efficient means for destroying the germs of disease. Concentration, that is strength of solution, is here important. Such solution will destroy bacteria if the articles to be disinfected can be brought into contact for a sufficient length of time with a sufficient quantity of the solution. Investigations have given us tables showing what strength of, *e. g.*, bichloride of mercury, must be employed and the requisite length of exposure. Especially are such solutions useful where we wish to disinfect large pieces of furniture which cannot be treated by more effective means. *Boiling water* will destroy disease germs, but not their spores.

According to Koch and Wolffhügel, (*Mittheilungen aus dem Kais. Gesundheitsamt*, Bd. 1) bacillus spores require dry heat at 140° C. for a period of three hours to insure their destruction. Sternberg's experiments show that superheated steam, 105° C. (220° F.), will in ten minutes destroy all spores of bacilli.

Exposure to dry heat at 140° C. is injurious to vegetable and woody fibres. It will thus be seen that superheated steam is the most efficient means we have of quickly and surely killing bacteria and their spores without injuring the fabrics containing them. In superheated steam we have found a means of disinfection which in conjunction with other measures will eventually become the system adopted by all municipal Health Boards.

The practicability of steam disinfection, on a large scale, is shown by the following description of the system as carried on in Berlin.

There are at present two such steaming institutions in Berlin. The apparatus by means of which the steaming is effected consists of several large iron receptacles which can be hermetically sealed. Leading into these are the steam-pipes which are so constructed that the steam pressure can be regulated. In front of the receptacle are tramways on which there are large racks. These racks hold the articles of clothing, beds, mattresses, etc., which are to be disinfected. When a rack is full it is shoved into the apparatus, the latter is hermetically sealed and the steam under pressure is turned on. It is found that in fifteen minutes the thickest mattress has a uniform temperature over 100° C. Experiments show that the disinfection is thorough.

As far as can be ascertained, this method of disinfection is as yet not compulsory. If for example a case of infectious disease occurs in a house, and the occupant wishes, and in most cases he does, that articles be disinfected, he notifies the nearest steaming station by telephone or otherwise. Immediately a wagon is sent from the station, and *all articles* which could contain the germs of disease, barring of course very heavy furniture (and these can be disinfected with strong antiseptic solutions), are placed in bags wet with a strong antiseptic solution of carbolic acid and these are labeled with the owner's name. They are delivered to the station, steamed, and returned to the owner on the same day. The men employed in bringing the articles from the houses *do not* come into contact with those who return them. The articles after having been steamed are taken out of the apparatus from another opening which is in another room. The disinfected articles, therefore, come nowise in contact with any member of the corps who handled them as infected articles.

It is found that only leather and poorly-dyed stuffs suffer from this treatment; the leather becoming brittle and the dyed articles

losing somewhat in color. When we consider the benefit accruing from thorough disinfection such a small matter becomes of no importance.

It must not be understood that in superheated steam we have an infallible method for the prevention of infectious disease. What we have found is this: *we can render aseptic in a convenient way those articles which are the most common vehicles of infectious and contagious disease.*

In preventing the spread of contagious disease the immediate isolation of the patient is important. He should be confined to one room; the nurse should attend to the patient *only;* the meals should be brought to the door; all visitors and members of the family should be excluded from the sick-room; the nurse should wear clothing which is of light fabric and can be easily disinfected, and an invaluable garment is a gown reaching from the neck to the floor. As soon as a patient has recovered or died, thorough disinfection should be undertaken by the most efficient means at command. If steaming is impossible, there are thorough disinfection by means of carbolic acid or bichloride of mercury. School children should not be allowed to return to school the day after the physician reports the case well, with the premises just as infectious as they were the day before. Visitors should not be allowed in the sick-room of the convalescent child because the gray patch has disappeared or the desquamation has ceased.

Carpets, if such nuisances are present in the sick-room—and they usually are—should be taken up and, being protected by antiseptic sheets, should be sent to some steam carpet-cleaning company, such as are found in all of our larger cities. The same may be done with feather beds, mattresses and pillows. Where walls are papered a very good means of removing almost all the germs consists in thoroughly rubbing them down with moist bread. Esmarch has shown that by this means wall-paper is freed from most bacteria, they becoming entangled in the moist bread, which can afterwards be burned. All wood work and furniture should be thoroughly washed with a strong antiseptic solution.

In cases of diphtheria it is important that, if the child is old enough to expectorate, its sputa should be received in antiseptic solution as in cuspidores which can be destroyed by fire.

In scarlet fever, during the stage of desquamation, means should be taken to prevent the fine scales containing germs from floating off. This can be effectively done by anointing the patient once or twice daily with some animal fat. I have employed lanolin for this purpose and have found it efficient. Such inunctions are probably also of therapeutic value.

The disinfection of typhoid-fever stools is a very important sanitary measure. The solution we use must be of sufficient strength and quantity to affect all the material in the chamber and must be thoroughly mixed with it.

Compulsory disinfecting means are perhaps at the present time too advanced for our social condition. That eventually they will come is beyond doubt. While public opinion is not sufficiently matured for the institution of such obligatory measures, we should commence immediately by adopting proper measures to educate it up to the required standard. Steaming houses could be erected in some two parts of the city conveniently situated. This would not be a very expensive procedure, especially if at first the steam could be obtained from some large factory such as abound in Newark. With a good corps of sanitary inspectors and helpers and a few wagons at each station the public would quickly be taught the benefits of thorough disinfection and would be glad to avail themselves of the opportunity. At first a small sum could be charged in cases where families desire to avail themselves of the benefits accruing from such measure. Even so small a sum as two dollars for each case, irrespective of the quantity to be steamed would have secured last year over $3,000 a year, estimating that two-thirds of the families in which cases of infectious or contagious diseases occurred would avail themselves. Such a sum would help pay the expenses of the Board. As soon as the public at large would become convinced of the efficacy of disinfection by this means in conjunction with the other measures already mentioned, compulsory disinfection and isolation would meet with little resistance.

Whatever is done to prevent the further spread of these diseases will meet with the hearty co-operation of almost all physicians, and each one, by bringing evidence and argument to bear in his own particular sphere, would thereby help to remove some of the obstacles in the way towards the perfection of sanitary measures.

HYDROPATHY.

BY JOHN HUND, M. D.,

SURGEON IN CHARGE OF ST. LUKE'S HOSPITAL, CHIPPEWA FALLS, WIS.

The saying that the doctors lay more stress upon the diagnosis than the treatment of disease is an old hobby of our dexterous antipodes—the quacks. One Italian count in his fantastic book on "Electro-Homœopathy" resorts, in order to confuse the masses, to the following craft: "My native city, Bologna, has forever been gifted with the most eminent physicians, before whom everybody bows—and I am not excepted. For who shall not respect and admire this geniality which enables them to see through the human mechanism so clearly and accurately as to be able to locate at a glance the diseased spot and to step up to the patient, saying firmly and with preciseness: 'here under my thumb, or an inch below such a point, here between such and such a rib, is the lesion located.'" "I noticed," the great writer continues, "that the *post-mortem* examination invariably affirmed the diagnosis. But with the same precision as the diagnosis was made, the patients died. So I said in my heart; what is medicine? what are doctors good for, if they cannot cure; if they do not even try to or think of cure?"

The reader deceived by this apparently logical sophism exclaims: "It looks that way!" But in reality it is never so. It is true, our best talents are engaged in studies pertaining to diagnosis, or rather to the solution of the problems of the various causes of disease; but all this heroic work is done with the only object to remove the causes, when found, that is, to prevent and to cure disease. So we see materia medica, pharmacology and therapeutics keeping pace with physiology, anatomy, histology and pathology. The new productions of the former studies are so multiple that, if there is a fault to find with the medical profession, it is rather on the side of progress. With such an enormous amount of therapeutical allowance it is not to be wondered at that some old and tried methods are overlooked in the pursuit of newer ones.

Hydropathy has an old and honorable history. The first recognition of consequence in this country is paid to it by James Currie, M. D. Austin Flint in his text-book on *Clinical Medicine* pays due tribute to Currie and recommends his medical reports on the effects of water, cold and warm, as a "Remedy in Fever and Other Diseases" (Am. Edition, Philadelphia, 1808) to the medical fraternity for careful perusal. But hydropathy does not seem to be as much used in this country as its merits would warrant; and the following case from my own practice will indicate what it may accomplish when the usual antipyretics fail us.

Some time last spring the eight-year-old son of a practitioner in this city took sick. His temperature rose quickly. The various physicians in attendance seemed to differ slightly as to the diagnosis. We measured the temperature and the thermometer registered 106° F. It is unnecessary to say that the boy's skin was extremely hot and dry, his face red and his eyes sparkling, and that he exhibited great restlessness and irritability of temper. A short hacking cough invariably followed by the unmistakable expression of pleuritic stitches failed to expel the cause of the supposed sting and by degrees raised the temper and agony of the poor little sufferer to the highest pitch. I attempted to feel his pulse, but with a jerk he pulled his hand away from me, at the same time kicking the bedclothes from his body.

For a change of scene, I allowed my eyes to wander through the room, and I observed on a stand an exhibition of medicine, of unusual variety for a sick room. The father of the child informed me that the only drug which seemed to have any influence over the temperature was antipyrin, and this did but little, as three doses of the drug given the day before my arrival reduced the fever only half a degree. On the day when I saw the patient he was not benefited by the drug at all. As said before, his temperature stood at 106° F.

After noting carefully the results of the various agents resorted to, I was convinced that all power of medicinal aid was exhausted, and so advised the use of cold water. The boy was picked up from his bed and was plunged directly into a bath-tub filled with ice-cold water, and, without losing time for drying, was sent immediately back to bed. After he became dry and warm again, a cold, substantial pack was applied, encircling his whole thorax, and enclosed by a dry woolen blanket, and the little patient was well covered up with the view to produce general diaphoresis. This soon set in and brought on the crisis at once.

His cough became loose and his expectoration easy, the pleuritic stitch disappeared and the temperature sank. I advised a two-hours' sweating. After this cold sponge baths were given as often as required, that is, whenever the temperature seemed to be stubborn. Of medicine he only took a muriate of ammonia mixture, as a heart tonic and as a stimulating expectorant. Under this treatment the boy was doing surprisingly well, and on the third day of this treatment his temperature became normal. He made a quick and excellent recovery, and I would like to ask if I am not justified in giving the hydro-therapy all the credit in the case?

ANÆSTHESIA.

BY WILLIAM H. BURR, M. D.,
WILMINGTON, DEL.

If it is possible, on any medical question, to bring order out of confusion, it would seem as though the above was one of vital importance. It is not as to which is the safer, ether or chloroform, but how should they be administered. A good deal of very positive opinion has been expressed, the best that I have seen being several monographs by Dr. Julian J. Chisolm, of Baltimore, which should be generally read. In the June number of the *University Medical Magazine* appears a very able article by Dr. J. T. Carpenter, which refers to the directions given by the London Hospital Surgeons many years ago, in which it is urged that atmospheric air must be freely admitted with the anæsthetic. That the inhalation be occasionally suspended, and that the patient be slowly brought under the influence of the drug; and finally, that, in many cases, full anæsthesia should not be pushed. Dr. Carpenter admits that these directions have been followed the world over, and then declares them to be all erroneous, and to arise from false conceptions of the proper nature of the anæsthetic action. He says, first, that an anæsthetic should be given with the least admixture of air so as to get the maximum effect from a minimum dose; that one should not administer the poison chloroform with its antidote air, and gives as a reason that you will surely deluge the vital centres with an undue amount of poison.

I cannot see the philosophy of this. I think all are agreed that the last clause of the London Hospital directions should be discarded, namely, "In many cases full anæsthesia should not be pushed." But in regard to the other directions, which Dr. Carpenter says are followed over the whole world, I think they are in accord with physiology and common sense. Dr. Carpenter has had a happy experience of thirty years, and that counts for a good deal; but it cannot be possible that he has personally administered chloroform all that time. And, in the matter of anæsthesia, my experience is, that the administrator follows his own ideas and experience, and takes the responsibility himself. If he does not, he ought to; for each one should administer anæsthetics according to his own ideas and those of nobody else.

I have had experience with both methods of administration, the gradual and forced. With the latter I have seen men and women struggling as if in death agony, and requiring half a dozen assistants to hold them down, praying and singing and telling all the little secrets of their lives. The former method I always use, and have never had a patient excited since I began. My theory in using gradual and careful administration is, that the more slowly the nerve centres and respiratory organs are brought under the influence of anæsthetics the less danger of their being overwhelmed by them. This is somewhat on the same principle as that one accustomed to taking alcoholic beverages can take at one time what would kill any one not accustomed to it. It is not supposed for one instant the absorption is much less in the one case than the other, but the nerve centres of the toper had become inured to a large dose and his elimination is probably also increased.

Every one holds his breath with anxiety while a patient is going through with the primary stages of anæsthesia. There is gastric disturbance, irritation of the respiratory organs, irregular breathing, and finally, just before complete anæsthesia, that horrible condition between sleeping and waking in which the patient apparently ceases to breathe at all, and the practitioner does not know whether he is going to breathe again or not. Then when regular breathing comes with complete anæsthesia there is relief to all concerned. To me, the longer the anæsthesia proceeds properly, within certain limits, the safer I feel.

Lyman asserts that ether kills by a me-

chanical surfeit, that it is capable of uniting with the protoplasm in a moving equilibrium if the quantity is not too large, but by an excessive amount it causes death in the same way as smoke or drowning, by interfering with the oxygenation; and that chloroform belonging, as it does, to the chlorine, bromine and iodine series, can only be associated with the elements of living matter in a stable equilibrium and therefore is a chemical poison.

Whether they are mechanical or chemical poisons, or both, it would seem that, if their action is at all analogous to that of other poisons, to flood the tissues suddenly with a pure vapor, excluding air, would overwhelm the protoplasm and cause death.

ATROPHY OF THE OPTIC NERVE.

BY S. DICKSON BARR, M. D.,

YORK, PA.

The patient, a farmer, 54 years old, came to me October 30, 1888, complaining of gradual diminution of vision since the preceding April. There was some pain in the eyes at night and stiffness of the lids. Tension was normal. His vision was eccentric R. $\frac{5}{200}$, L. $\frac{7}{200}$. He was unable to distinguish either green or red colors; and also unable to tell the time by his watch. Depressions in the ground appeared nearer to him than they were in reality, so that he was constantly stepping into rather than over them as he supposed.

Ophthalmoscopic examination showed the optic papilla as a white disc in both eyes; the funstrated membrane being quite distinct. The central vessels were slightly contracted in their caliber; and the capillaries had almost entirely disappeared. There was nothing to indicate that any spinal or brain affection was the cause of the eye trouble, as the patient was in good health with the exception of colic and indigestion caused, no doubt, by worms, which he occasionally vomited. He was moderate and temperate in all his habits; but, being a farmer, was exposed to all kinds of weather.

Not being able to assign any special cause for his trouble, I put him on a tonic treatment and electricity; at the same time attention was given to his stomach trouble. I also prescribed a pill which Dr. L. Webster Fox has used with much success.

℞ Strychniæ sulph . . . . . gr. $\frac{1}{40}$
Ext. aconiti.
Acidi arseniosi . . . . . aā gr. $\frac{1}{20}$
Ext. belladon. . . . . gr. $\frac{1}{10}$
Phosphor. resinæ (4 per cent. pill) . gr. $\frac{1}{2}$
M. Sig. After each meal.

Inunctions of mercury were made each night above the brows, and were omitted one week in every four.

I applied the negative pole of the galvanic current to the eye and the positive pole back of the ear on the same side; then changed the positive pole to the other side of the head. I gave five milliamperes for five minutes to each eye. This was done every day for two weeks. At the end of that time there was a slight improvement, the vision being R. $\frac{6}{200}$, L. $\frac{12}{200}$.

The patient not being able to stay in town any longer, came only three times a week for treatment. After two weeks of this treatment, that is by December 1, I found the vision to be R. $\frac{7}{200}$, L. $\frac{18}{200}$, which was quite encouraging, although the right eye did not improve as fast as the left. The ophthalmoscope showed the optic disc in left eye to be not quite so white as on November 1, the capillaries were beginning to show slightly. There was not much change in right eye.

About this time the patient had an attack of colic during which the eyes went back somewhat, so that by January 1, 1889, there was no farther advancement than in December 1, the patient having only regained that which he had lost during his digestive troubles. The electricity was administered three times a week up to February 1, 1889. At this date the patient was able to tell the time by his watch and could recognize persons. The vision was found to be R. $\frac{20}{200}$, L. $\frac{20}{100}$. From February 1 to March 1 two applications of electricity were given every week. On March 1 the vision was R. $\frac{15}{200}$, L. $\frac{15}{100}$. From March 1 to April 1 one application of electricity was given each week and the patient made rapid strides towards recovery. On June 1 the vision was R. $\frac{20}{70}$, L. $\frac{20}{80}$. From June 1 to July 15 the treatments were irregular; but improvement continued. He was then able to read ordinary type and to distinguish colors. The ophthalmoscope showed the optic papilla virtually normal in appearance in both eyes. He was entirely free from pain in the eyes and all stiffness about the lids had disappeared.

This treatment continued over a period of nine months. His attacks of colic were very infrequent. I saw him several months after I stopped treating him and found him in good spirits and his eyes doing well.

HOSPITAL NOTES.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

SERVICE OF DR. ROBERT W. TAYLOR.

Eczema.

Case 1. A freight-handler, thirty-six years of age, presented himself with a small patch of reddened, scaling and fissured skin in the palm of one hand, from which he said blood or serum occasionally oczed. There was a history of long-continued irritation of the part; but it was altogether unusual for a lesion in the palm to remain so localized for so long a time. The condition at first suggested keratosis, but that was a simple thickening of the epithelium, while in this case there was also an inflammation involving the whole thickness of the skin.

The treatment consisted in the protection of the part from irritation, and keeping the hand as far as possible covered with an ointment composed of eight parts of diachylon ointment and one pint of balsam of Peru.

Case 2. This patient was followed by another one having a small, thickened, and somewhat pigmented patch on the inner side of the thigh. It was just at that part where the scrotum was constantly in contact with the thigh, so that moisture and dirt irritated the part. The occurrence of an eruption in this locality was suggestive of a parasitic disease, *e. g.*, ringworm or pityriasis versicolor. Ringworm generally occurred in a succession of clearly defined circles, increasing peripherally, and enclosing an area of more or less reddened skin denuded of hairs, or containing only imperfect ones. Small rings often formed within this. This form of ringworm was called tinea circinata cruralis. The term eczema marginatum had been applied to a condition in which ringworm was complicated with an eczema; and some years ago, Hebra and some of his followers had an animated discussion upon this point. Hebra considered it a peculiar form of eczema; but it was finally demonstrated to be only a complication of a parasitic disease. The two together were capable of giving rise to quite a formidable complication. Pityriasis versicolor sometimes extended down into this region. In the inguino-scrotal cleft it was quite common to find the tissues darker than on the surrounding parts, and this was particularly noticeable on the left thigh, against which the scrotum rubbed.

The treatment was very simple, and consisted in the observance of proper cleanliness, and the liberal use of an absorbent dusting powder like starch, with the interposition of lint between the scrotum and thigh.

Purpura Rheumatica.

Case 3. Dr. Taylor then showed the class a man, thirty-two years of age, who had a very interesting eruption with a somewhat puzzling history. The patient stated that he had had a sore on his penis eight years ago, followed by a rash, and that a physician had told him he had syphilis. However, a careful and exhaustive inquiry failed to show any good grounds for believing that he had had syphilis. He had been attacked by acute articular rheumatism fifteen years ago, and after ten years' immunity from this disease it returned; so that during the past five years it had troubled him about every four or five months. The spots which were now on his body, he said, appeared regularly a day or two before the attack of rheumatism. At present he had pains in the knees, ankles, and elbow; one hand and knee were swollen; and the legs and arms were marked by hemorrhagic patches, which did not disappear on pressure. But besides this eruption, there was an infiltrated patch on the right buttock, partially covered with a horse-shoe shaped crust, and just above this were pigmented cicatrices marking the site of former ulceration. It was not at all uncommon, the lecturer said, for old syphilitics to be affected by articular rheumatism and rheumatic eruptions; but the patches on the buttocks were suspiciously like a syphilide. It should be borne in mind, however, that purpura hemorrhagica might give rise to ulceration. The hemorrhagic eruption was situated on the middle three-fifths of the leg, and the outer and inner aspects of the thighs, and on the forearms. Pressure had no effect on the spots, and the skin was somewhat thickened by the exudation of

blood. The disease, purpura rheumatisa, usually made its appearance first about the ankles, and quite commonly prior to, or coincident with an attack of rheumatism. The exudation of blood which formed these spots underwent absorption after a time, leaving decided pigmentation. In this patient the buttocks showed the early stage of the eruption, and the limbs a later phase of it. Although the clinical history was sufficiently clear, the actual pathology was by no means well understood. It was thought that the rheumatism by producing certain changes in the blood gave rise to a tendency to the effusion of that fluid on parts of the body where the circulation was not very active, as upon the legs, or in situations subjected to pressure. There might also be some change in the walls of the capillaries leading to effusion of blood.

Treatment. The treatment, of course, consisted in treating the rheumatic condition, by improving the hygiene, and administering the salicylate of soda.

Papular and Pustular Syphiloderm.

Case 4. The next patient, a man twenty-three years of age, who had had a hard chancre three months before, presented an admirable illustration of the large papular and pustular syphilide. The eruption covered the face, body and limbs. This eruption was so peculiarly prone to ulcerate, that it was very common in public practice to find these patients presenting themselves with bandages on the forearms and legs.

PERISCOPE.

Surgical Treatment of Tuberculosis of the Pleura and Lung.

Professor Tillmanns, of Leipzig, writes, in the *British Medical Journal*, June 14, 1890: At the Congress of German surgeons held this year at Berlin, I showed a patient whom about two years previously I had completely cured of severe tuberculosis of the left pleura and left lung by extensive resection of the front part of the left chest wall. The tuberculosis of the left pleura and left lung was made accessible for purposes of local surgical treatment by removal of the fore part of the left chest wall, which was also affected with tubercular disease. The heart was displaced to the right behind the sternum as the result of an empyema of more than two years' standing. After the cure of the tuberculosis of the left pleura and the left lung, I converted the left pleura into a cutaneous cavity by transplantation of skin according to Thiersch's method. The healthy right lung and the heart, which still remains displaced to the right, now act so well that the patient, in spite of the loss of his left lung, has since about September, 1888, been able to attend to his business as a merchant quite in the same manner as before. My observation is also of interest with reference to the operative treatment of tumors and other diseases of the pleura and lung. The Editor of the *British Medical Journal* has invited me to report on the case to which I have referred. I hereby very gladly comply with the request, and I propose to add some remarks on the surgical treatment of diseases of the lung and pleura.

In the first place, with regard to the history of the above mentioned case, the following are the chief points. The patient, who is now 28 years of age, came under my care on April 19, 1888. He presented the appearance of one in the last stage of phthisis. The left lung was phthisical to a high degree, the pleura being firmly adherent in its upper third; in the sputum numerous tubercle bacilli were found. In the two lower thirds of the left pleural cavity there was an empyema which had been in existence for two years and a half; several fistulæ traversed the left front chest wall, which was also the seat of tubercular disease. As a result of the left-sided empyema, the heart was dislocated to the right behind the sternum. The right lung was comparatively healthy, and acted well. In the middle of October, 1885, the patient became affected with serious left-sided empyema, and after that time (that is to say, for more than two years and a half) he was, with few exceptions, confined to his bed.

In November, 1885, about three litres of pus were removed by means of puncture (thoracocentesis.) In September, 1886, and January, 1888, thoracotomy, with resection of a piece of rib at the lower and hinder part of the thorax, was performed by a practitioner in Saxony. When the patient came under my care in April, 1888, I first sought to cure the existing left-sided empyema by means of extensive rib resections—from the second to the sixth rib on the left side in front, and of the seventh, eighth, and ninth ribs on the left side behind—of course with slight hope of success, since the left lung was

already the seat of serious tubercular disease. As the patient was becoming steadily weaker, and had no prospect but that of a speedy certain death before him, I determined to expose the tuberculosis of the left pleura and left lung by extensive resection of the anterior part of the tubercular left chest wall—ribs as well as soft parts—and subject it to energetic local treatment. In this manner the left lung would certainly be placed completely, and probably forever, *hors de combat*, and the patient would have to be contented with the work of his right lung alone. But the left lung was extensively diseased, and had been functionally incapable for months, and the patient had, in fact, been for months entirely dependent on his healthy right lung. By too long waiting the right pleura and right lung would also become tuberculous. On May 27, 1888, therefore, the front part of the left chest wall, tuberculous and riddled with fistulæ as described, was resected *in toto* for an extent of from 5 to 12 centimeters, from the second to the sixth rib, close to the left sternal border. The breadth of the portion of the thoracic wall removed was 5 centimeters at the upper part; it became wider from above downwards, and measured 12 centimeters in breadth at the lower part. The whole of the left pleura was tubercular to a high degree; the left lung was phthisical, and only as large as a man's fist; and was firmly adherent at the level of the first rib. The left lung was partly covered by a pedunculated skin flap taken from the thorax, in such a manner, however, that it remained accessible to local treatment. The left pleura was energetically scraped with a sharp spoon, and then stuffed with iodoform gauze. On June 22 the left pleura, after repeated previous scraping with the sharp spoon, was converted into a cutaneous cavity by transplantation of skin according to Thiersch's method. Local treatment of the left lung proved unnecessary in the further course of the case. The organ shrank together steadily more and more, and the tuberculosis, of which it was the seat, underwent a process of spontaneous cure in consequence of this shrinking. The patient was discharged cured on July 23, 1888. He has remained quite well up to the present time. He can attend to his business as a merchant as before his illness, and presents a blooming appearance. When I saw him again for the first time some time ago I did not recognize him at the first glance, so stout had he become. The left lung, entirely collapsed, can be felt in the upper part of the left side of the thorax, at the level of the first rib behind the flap of skin which partly covers it; it is quite inactive. The right lung is absolutely healthy; the heart is still displaced to the right. The left pleura is a skin cavity of the size of a man's fist, and covered with epidermis. In speaking and on deep inspiration the mediastinum is arched to the left. At the lower part of the mediastinum, that is, the median wall of the skin cavity, the movements of the heart can be seen and felt. The strength and movements of the left arm are not impaired, but perfectly normal.

I recommend that in similar severe cases of one-sided tuberculosis of the pleura and lung the same procedure should be adopted as I carried out in the case related, that is to say, the seat of disease should be exposed sufficiently for local surgical treatment by free resection of the chest wall in front or behind. In suitable cases the performance of a temporary resection of the chest wall may be recommended. A pedunculated flap of skin and bone is formed, and turned back, and afterwards when the disease of the pleura and lung is cured, the thoracic coverings are replaced in their original position. One can also proceed in such a manner that, after extensive resection of the ribs, the soft parts in the chest are divided in the direction of the lung, the two flaps of soft tissues drawn apart with wound hooks, the pleura and lung subjected to adequate local treatment, and then the soft tissue flaps united to the pleura by compression. In my above related case I was obliged to remove the anterior part of the left chest wall *in toto*, as it also was extensively diseased.

Our case teaches further, in my opinion, the manner in which unilateral tumors of the pleura and lung may best be removed. In these cases, likewise, the pleura and lung should be exposed by total or temporary resection of the chest wall or by resection of ribs with division of the soft parts of the thorax in the direction of the lung; and then later on, by a second operation, the diseased lung, which is by this time collapsed, should be removed, and the tumor extirpated or destroyed with Paquelin's thermo-cautery.

Recently I have also treated pulmonary phthisis by injections of iodoform glycerine and iodoform oil. I use 10 per cent. sterilized mixtures of iodoform glycerine or iodoform oil, which I inject into the lungs to

the amount of 5 grammes, with antiseptic precautions, through an incision in one of the intercostal spaces. I have not found it advantageous to inject more than 5 grammes. At first I made the injections under chloroform narcosis; now I make them without an anæsthetic. Beyond ordinary dyspnœa, which quickly passes away, I have seen no injurious effects. I always make the injection into one lung only, never into both at the same time. I usually perform the injections at intervals of from one to two weeks; in slighter cases I make them every three or four weeks. With regard to the real advantages of these injections of iodoform into the lung I cannot as yet make any positive statement; I have not yet tried the method long enough, or in a sufficiently large number of cases. What I have seen up to the present, however, encourages me at all events to continue the treatment of pulmonary tuberculosis by injections of iodoform.

Sea Air for Phthisis.

In a review of a recent book by Dr. Remondino, President of the Board of Health of San Diego, California, the *Lancet*, July 5, says:

Dr. Remondino discusses at considerable length the influence of marine climates upon phthisis, and sums up strongly in their favor. This is a return to the views of Laennec and most of the older authorities—a doctrine thrown somewhat undeservedly into the shade by the good results obtained at some of the high-altitude sanatoria. In forming a rational creed upon this difficult question, we must beware of the fallacy that lurks under most sweeping generalizations, and we must never shut our eyes to any well-authenticated facts. The good results obtained at Davos, Görbersdorf, Denver, Bogota, and such like elevated sanatoria, must not make us rush to the fallacious generalization that high altitudes are a specific for phthisis, nor should such facts cause us to ignore for a moment the excellent effects that often attend a sea voyage or a residence at a marine sanatorium. We have to recognize that good results may attend either method, that general rules lead only to confusion, and that our business is not to exalt the high altitudes over the sea voyage and the marine resort, or *vice versa*, but to seek as patiently as possible to determine the indications and the contra-indications for and against each type of climatic treatment. Dr. Remondino is emphatic in his opinion that atmospheric moisture, as compared with soil moisture, has no influence in generating phthisis, a view in which we quite concur.

As regards the results of the treatment of phthisis at San Diego, Dr. Remondino speaks very confidently. He informs us that the banks, stores and business houses are largely manned by cured consumptives and that of the physicians, dentists, lawyers and clergymen it is safe to say that eight out of ten resorted to California for their health. Of 258 deaths registered from phthisis during ten years at San Diego only nine cases were born in California. In estimating the value of this fact we must remember that we are dealing with a new country, mainly peopled by immigrants. Dr. Remondino thinks cases of hemoptysis do very well in California; he has also seen apparently wonderful results in laryngeal phthisis, in which affection his experience would appear unusually fortunate.

If past experience warns us that roseate accounts of new sanatoria must be received with much reserve, there seems every reason to admit that Southern California is one of the most favored regions of the world, that its climate possesses a conjunction of advantages rarely to be found, and that the country presents many attractions for the tourist, settler or invalid.

Transmission of Syphilis Through Shaving.

In the *Meditzinskoiĕ Obozrenïĕ*, No. 1, 1890, Dr. Nïkolai P. Featchenko, of Moscow, publishes a very instructive paper, in which he says that in the course of five months he has met with three cases of syphilis contracted through shaving; the primary sore in each instance developing on the site of a trifling accidental cut inflicted with a razor. Two of the men (one a married merchant, thirty-eight years old, and the other a bachelor, twenty-three years old) had been shaved in a barber shop, the third (a student, twenty-two years old) performed the operation himself, and that with a razor just purchased of a barber. According to the author, international medical literature contains only seventeen cases (including his own three) of the kind, the primary ulcer being situated in six cases on the cheek, in six on the chin, in two on the neck, in

one on the lip, in one on the forehead, and in one on the naso-labial fold. He does not doubt in the least, however, that the infection in a barber shop occurs incomparably more frequently than one might conclude from the scantiness of records on the subject. The author supports his assertion by the fact that syphilitic barbers are by no means *raræ aves*. Meanwhile they are permitted to quietly shave their unlucky clients and to thus spread the infection. "A syphilitic barber," the author adds, "constitutes a by far more formidable source of the infection than a syphilitic prostitute, since the latter can come in professional contact, on an average, only with 2 or 3 men a day, or 60 or 90 a month, while the average barber shaves about 15 men a day, or 450 a month." Hence, Dr. Featchenko energetically appeals to put an end to this state of things and to establish a stricter and most effective sanitary supervision of barbers' shops all over the country.

Ointment for Lupus.

Mr. H. G. Brooke suggests an ointment for the preliminary treatment of lupus vulgaris which he states (*British Journal of Dermatology*) considerably reduces the field in which operation is necessary, involves no pain, and requires, in most cases, no suspension of work or of ordinary habits. The formula for the combination he uses, which is quoted in the *St. Louis Medical and Surgical Journal*, July, 1890, is as follows, this being the limit as to strength:

℞ Hydrargyri oleatis (2½–5 per cent.) . ℥j
Acidi salicylici . . . . . gr. x–xv
Ichthyolis . . . . . ♏ xv
Ol. lavandulæ
vel. Ol. citronellæ q. s.
M.

In every case it is better to begin with the lower doses and the skin must not be broken by the application. If it becomes sore and threatens to break the ointment must be diluted with pure lard. The ointment should be rubbed in for ten minutes in the morning and for twenty minutes in the evening, and kept on during the intervening time. The effects are claimed to be most excellent. In some few cases the ointment above has been curative but it produces its best effects in those in whom no previous surgical interference has been made. Its action upon deeply-embedded nodules, lying among the fibrous meshes of old sores is not so marked, although it prevents or retards further growth.

Administration of Codeine.

Codeine is but slightly soluble in water, but easily so in alcohol and ether. For an adult the average dose is one-half grain (0.03); if necessary the dose may be repeated during the day. The drug may be dispensed in powder form, pills, capsules or syrup. If ordering powders, it must be remembered that the taste of codeine is more bitter than that of morphine. Pills, capsules or a mixture with syrup, are preferable forms for the administration of the drug.

When prescribing codeine in pill-form, each pill should be made to contain ⅓ gr. (0.02) to ¾ gr. (0.05) of the drug. This form of administration is especially convenient in cases where repeated doses of the remedy during the day are indicated.

The *Journal de Médecine*, June 15, 1890, gives the following formulæ for codeine.

℞ Codeine . . . . . gr. xv (1.0)
Extract of gentian.
Powdered liquorice root q. s.
Make into thirty pills.

If a mixture with syrup is desired, it may be prescribed as follows:

℞ Codeine . . . . . gr. iv (0.2)
Alcohol . . . . . f℥jss (5.0)
Syrup . . . . . f℥iijss (95.0)

Ten grams contains 3 centigrams of codeine; one tablespoonful of the mixture contains about ¾ grain.

Finally, the drug may be prescribed in solution with water. Owing to its poor solubility in water, one of its salts—either the phosphate or sulphate—should be used.

The aqueous solution of phosphate of codeine is best adapted for the hypodermic administration of the drug. The phosphate of codeine is soluble in four parts of water.

The following formula may be used.

℞ Phosphate of codeine . . . . gr. xv (1.0)
Distilled water . . . . . f℥vss (20.00)
Carbolic acid crystals . . . . gr. ⅓ (0.02)
M. Sig. Inject one or two syringefuls.

Subcutaneous injections of the above rarely produce any local symptoms of irritation.

[The smaller dose in this case—allowing

30 minims for a syringeful—is over a grain, the phosphate of codeine being presumably a weaker preparation than codeine itself.—ED. REPORTER.]

Salipyrin.

The *Druggists' Circular*, July 5, 1890, says it has at various times during the past twelve months commented upon the peculiar change which takes place when antipyrin and salicylate of sodium are mixed together in powders or in concentrated solutions. In the former case the two compounds assume a pasty condition, and in the latter there is a separation of oily globules. The phenomenon has been investigated by a French pharmacist, who came to the conclusion that it is merely a case of deliquescence. This is now confirmed by Professor Spica, of Florence, who states, however, that under certain conditions he has been able to prepare a true compound of antipyrin and salicylic acid, which has the formula $C_{11}H_{12}N_2O.C_7H_6O_3$. This is obtained in white crystals, and it is sparingly soluble in water. Dr. L. Scholvien, chemist to J. D. Riedel, Berlin, confirms what Professor Spica says (*Phar. Zeit.*), and states that some time ago his firm made the article and supplied it under the name "Salipyrin Riedel" to the Berlin Hospital for experiment. It can be made by simply slightly heating antipyrin and salicylic acid together in molecular proportions. Dr. Scholvien states that salipyrin melts at 91.5° C.; it is easily soluble in alcohol and benzol, not so soluble in ether, and very difficultly soluble in water. The therapeutic properties of salipyrin have not yet been accurately determined, but it may be worth the attention of those who have been in the habit of prescribing antipyrin and salicylic acid together.—*Chemist and Druggist*, July 5, 1890.

Contagiousness of Leprosy.

The *Lancet*, June 28, 1890, refers to an interesting communication from Dr. Navarro, appearing in the *Revista Médica de Bogota*, regarding the contagiousness of leprosy. It was stated that a leper who was married to a healthy woman had two boys by her, one of whom showed signs of the disease at the age of one month, and the other at the age of two months. A woman who was a leper took two healthy persons into her service, and before a year had elapsed both had become lepers. Another woman, also a leper, engaged a healthy man as butler, who contracted the disease and died from it before the woman herself. A healthy man married a female leper, and at the end of three months he himself showed symptoms of the disease and was sent to the lazaretto. Dr. Navarro says he has met with several cases where the parents of lepers have been gouty.

Suit for Damages for Injury to Fetus.

The *British Medical Journal*, June 28, 1890, tells of a curious and novel suit that has been brought before one of the Irish Courts, and which was occasioned by the disastrous railway accident at Armagh a few years ago. A woman who was in the train at the time of the accident, and in an early stage of pregnancy, subsequently gave birth to a crippled child, and the child now sues the railway company, through its father, for the damage it has sustained in being crippled in consequence of the railway accident. Every one is familiar with instances in which malformations have been ascribed, with more or less probable accuracy, to some injury or shock the mother received during her pregnancy, but the *British Medical Journal* has been unable to find any instance in which such malformation has hitherto been the ground of action at law.

Powerful Antiseptic.

Potassium mercuro-cyanide ($K\,HgCy_4$) is one of the most powerful antiseptics known. Behring found that 1 part in 60,000 will entirely prevent the development of the anthrax bacillus in serum. It is soluble in water and does not precipitate albumin. The lethal dose for guinea-pigs is 1-150,000 of the weight.

Pyoktanin.

According to the *Chemist and Druggist*, June 21, 1890, pyoktanin, first recommended by Stilling, is now the subject of some varying reports. Dr. Braunschweig calls attention to disagreeable symptoms of irritation which are produced, and to the small degree of success he obtained with it.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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P. O. Box 843. Philadelphia, Pa.

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CONTAGIOUSNESS OF PHTHISIS.

The readers of the REPORTER will be interested to know that the London *Lancet*, July 5, devotes its leading editorial to a discussion of the able paper by Dr. T. J. Mays, which was printed in full in our issue for June 14.

In that paper Dr. Mays took a strong stand against the notion that consumption is contagious, in the usual sense of the term, and supported his position by a series of very convincing statistics bearing upon this special point. The *Lancet*, while avoiding committing itself to the conclusions to which Dr. Mays comes, admits the force of his argument and points out the valuable lessons taught by his statistics. The figures given, the *Lancet* says, are worthy of every attention, and are encouraging as tending to prove that, if phthisis be contagious, it is only very feebly so, and that any panic on the subject, or any language likely to excite the public mind unduly, must be steadily deprecated. At the present time, it adds, when old ideas have been roughly shaken, and new ideas are hardly established on a very secure foundation, it is no easy matter for the thoughtful practitioner of medicine to say what attitude he ought to assume towards the question of the contagiousness of phthisis. He feels that he is not free to ignore the new light that has been thrown on the pathology of the disease, and that, on the other hand, while the clinical evidence of contagion remains so inconclusive, it is a very serious thing to teach his patients a doctrine so distressing to themselves and to their friends—a doctrine, further, that has proved of little or no value with regard either to the prevention or to the cure of this disease. A dogmatic attitude, the *Lancet* says, is hardly yet possible; but we are at least safe in discountenancing panic while approving of reasonable precautions, and we must heartily welcome any evidence tending to throw light on a subject which is of such vast practical importance.

We can go a little further than our contemporary in regard to this subject, because we have gone over a good deal of the ground traversed by Dr. Mays in arriving at his conclusions, and while we are well aware that there are a number of cases in which the evidence points to no other reason for the development of phthisis than a very prolonged association with a phthisical patient, we do not hesitate to say that these cases do not come within the proper limitations of contagiousness, as it is understood in general, and that, if there is to be any fixity in the definition of medical terms it is not wise or logically just to use the same word in describing such rare cases of apparent communication of consumption from man to man as is used in speaking of the communication of small-pox, or scarlet-fever, or measles, or whooping-cough.

For the present the REPORTER believes

that the evidence indicates that consumption is not contagious, and deprecates, with Dr. Mays, and many other men of special and large experience in this particular line of study, the contentions which thus far have served only to excite needless alarm in the community, and, to a certain extent, to distract medical men from elements in the natural history of the disease which are of much greater practical importance at the present time.

NONA.

With their first appearance we call the attention of the readers of the REPORTER to the reports of what was supposed to be a new disease, appearing in Germany in the early part of this year and following the out-break of the *grippe*, which spread all over Europe as well as this country. Since that time there have been a small number of cases reported in different countries, which were supposed to answer the description of this disorder. Nowhere, however, has there been good evidence that it was really a new and special disease. Similar conditions of long-continued sleep have been observed from time to time in different lands since the earliest days when medicine was a science. It seems as if the cases thus far reported have been simply cases in which sleep or coma continued for some time in the course of recognizable diseases; so that those who have carefully watched the developments in regard to nona have come to the conclusion that it ought not to be spoken of as though it were in itself a distinct disease.

The subject seems to be pretty well settled by a recent formal opinion given by the National Board of Health of Hungary, in response to inquiries from the Hungarian Minister of the Interior. In this opinion, which is published in the second supplement to the *Allegemeine Medicinische Central-Zeitung*, July 9, 1890, this subject is carefully and thoroughly discussed, and it is pointed out that the nearest actual resemblance to what is now called nona is what was described by Gorre, in the *British Medical Journal*, January, 1875, as "the sleeping sickness of Western Africa." And opinion fully confirms our view that nona is not a distinct disease.

The origin of the word "nona" is not known, nor is its etymology; but it is sometimes supposed to be a perversion of "coma," or the Italian word "nona" used to indicate a sleep lasting nine days. Some ground for this seems to be furnished by the fact that the first cases of nona were reported from Italy.

As far as Hungary is concerned the National Board of Health asserts that there has been no case of nona observed there, and shows quite unmistakably that this word is one which might well be banished from the medical vocabulary, except as is necessary to know that it was used in this year for a condition which is simply a part of a number of different diseases. With this we think we have given the readers of the REPORTER both the beginning and the ending of the subject nona, and that they will understand hereafter exactly how much or how little this word indicates.

SEXUAL PERVERSION.

The Germans call, "*Conträre Sexualempfindung*" what we call sexual perversion; and they have a better expression, for theirs indicates the utter turning round of the natural sexual appetite which characterizes what these expressions refer to. Many cases are on record of this singular abnormality; and all of them have much that is repulsive about them, and do not tempt any normal mind to linger over them longer than is necessary in order to know what must be known of them in order to be acquainted with the strange possibilities of the human mind. It is therefore only as a contribution to the literature of this singular phase of human experience and object of medical investigation that we report the recent descrip-

tion, in the *Münchener med. Wochenschrift*, June 10, 1890, by Dr. Peyer, of Zurich, of two cases, in which the form of sexual perversion was very peculiar. In one, a man fifty-seven years old, and unmarried, who had some melancholy with temptation to suicide, had erections and ejaculations at the sight of well-kept finger nails and of wrestling and scuffling among school-boys. The pleasure furnished him by this sight was so great that he was in the habit of passing school-houses as the boys were dismissed, and of giving them money for scuffling with each other. The other case was that of student of theology, who had long suffered with nocturnal emissions, and who had erections and ejaculations with peculiar pleasures at sight of the struggles of insects attempting to escape when he stopped the way to them. This man was cured by Dr. Peyer, and became a husband and a father in due time; the first was only improved by long care.

Dr. Peyer divides the cases of sexual perversion into two classes: the hereditary and the acquired. Of the former class was the first of the cases he describes, while the second belonged to the second class. All such cases are accompanied usually by symptoms of perverted nerve function, and they are curable just as the general condition of which they form only a part is curable.

A QUACK EXPOSED.

The Philadelphia *Times* has recently done a service to the community by exposing the methods practiced in the office of a person who advertised largely as Dr. A. Wilford Hall, and sold a pamphlet containing, it was claimed, a secret for the restoration of health and the prolongation of life. A curious feature of the business was the fact that each purchaser was compelled to promise on honor that he would not disclose to others what he learned from the pamphlet. The individual who conducted this business escaped the provisions of medical practice law, because he figured not as a practitioner but as a bookseller. But now the business has been fully exposed by a representative of the *Times*, who purchased a pamphlet of Dr. Hall, and found that his whole secret consisted in a recommendation to buy a syringe and take a hot water enema every night.

That so shallow a device to get peoples' money should go on as long as this has in Philadelphia and, we believe, in other cities, is a sad reflection upon the gullibility of mankind; and shows how much the community needs the sort of journals that will look after its interests, and stay awake when it is sleeping.

Of late the daily papers have done a great deal in informing the public on matters of public health, and have in many cases proved valuable allies to the medical profession in warning or advising the community. In doing this they have ranged themselves alongside of the medical journals which discuss live topics relating to the physical welfare of the community, and have very much extended the field of usefulness open to the latter.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

A PRACTICAL TEXT-BOOK OF THE DISEASES OF WOMEN. By ARTHUR H. N. LEWERS, M. D. Lond., M. R. C. P. Lond. Asst. Obstetric Physician to the London Hospital, etc. Second Edition, with 146 Illustrations. 8vo, pp. xvi, 444. Philadelphia: P. Blakiston, Son & Co., 1890. Price, ——.

It gives us pleasure to announce the appearance of the second edition of Dr. Lewers' work. We are familiar with no text-book on gynecology, presenting the subject concisely, which contains so much that is in every way good, and so little that is objectionable.

The book is distinctively English, especially it appears so to the American reader. For examp e, it is stated that the bimanual examinations of the pelvis can be made equally well whether the patient lie on the left side or on the back. There appears to be no good reason for employing the lateral decubitis, but it may be well for the examiner to familiarize himself with both methods of examining. The views of Emmet concerning laceration of the cervix evidently are not accepted, as they are not mentioned; nor is this pathological condition considered, except as a cause of cervical endometritis. While the importance of this lesion was doubtless exaggerated in this coun-

try some years ago, and while the tendency at the present time is to consider it lightly, yet there is too much evidence of its importance, and of the value of the operation for its cure, to justify an author in ignoring the subject. The relation between laceration of the cervix and salpingitis is well worthy of study; also the value of trachelorrhaphy in preventing pus tubes. On the other hand, the danger of trachelorrhaphy, immediate and remote, when salpingitis is present, cannot be too strongly insisted upon.

Likewise no mention is made of Emmet's operation for the cure of laceration, or relaxation of the perineum, with rectocele; although this operation, perhaps slightly modified, is considered, by very many American gynecologists, to give the best results.

The author's teachings concerning the use of the uterine sound are not shared by many—especially not by the followers of Emmet. The dangers attending the routine use of this instrument in determining the size and position of the uterus, and in restoring it to its normal position, are so well recognized, that they cannot be too strongly insisted upon. Nor can the man not skillful in making the bimanual examination be too urgently advised not to use the sound at all. Were this plan adopted abortion and pelvic inflammation would less frequently follow pelvic examination. The skillful examiner has little need for the instrument—indeed we believe that there is no better criterion of a man's lack of skill in making a pelvic examination than the frequency with which he employs the uterine sound.

Another point we believe worthy of attention is the relation between endometritis and salpingitis. It is universally agreed that endometritis precedes salpingitis; and it is equally true that these conditions frequently co-exist; and that while the endometritis antedates the salpingitis, yet it is in turn kept up by the salpingitis. This important fact is not sufficiently dwelt upon in text-books. No man should be satisfied with a diagnosis of endometritis, and proceed to treat it, unless he has excluded inflammatory disease of the uterine appendages, for should this be present the treatment ordinarily advised for endometritis is absolutely contra-indicated.

While these points are blemishes, yet the general excellence of the book, and especially the thoroughly modern expositions of the subjects of pelvic inflammation, pelvic hematocele, and extra-uterine pregnancy, render it a real addition to current literature—especially valuable to those not having the time to wade through lengthy treatises.

SAUNDERS' QUESTION COMPENDS. ESSENTIALS OF EXAMINATION OF URINE, CHEMICAL AND MICROSCOPICAL, FOR CLINICAL PURPOSES. Arranged in the form of questions and answers. By LAWRENCE WOLFF, M. D., Demonstrator of Chemistry, Jefferson Medical College, etc. Colored plate, and numerous illustrations. Small 8vo, pp. 56. Philadelphia: W. B. Saunders, 1890.

The title of this little book so well describes its contents that very little is left to be said about it. Compends arranged in the form of questions and answers have at least this advantage, that the important points are invariably brought out, and the student can tell from the answers whether his knowledge has been precise or only vague and indefinite. In the present instance the questions have been well chosen, and the answers are clear and brief. The book cannot fail to be useful to students.

Literary Notes.

—*Babyhood*, for August, cautions parents against allowing children to hear too much about "mad" dogs, since hydrophobia is so rare a disease, while lyssophobia sometimes proves fatal. This number of the magazine contains also a few hints as to water sports for children, and an illustrated description of the most improved methods of resuscitation from drowning. There is an article upon "Hives," and one upon "Signs of Disease in Early Life." Various questions of diet and clothing, pertinent to the season, are also discussed.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Sanitas Disinfectants and Deodorants.

Some time ago we received from the American and Continental Sanitas Company, New York, a line of specimens of its antiseptic and deodorant preparations. These we have tested in actual use with the most satisfactory results. The season has been one in which the crude disinfecting fluid has been of especial value, and it has been found that its use, in conjunction with that of the disinfecting powder, has been very serviceable in cleansing and purifying the drains of water-closets and bath-tubs. The Sanitas soap proved to be a pleasant and satisfactory detergent; and the impression made by all the preparations tested has been so good that we have no doubt the others are quite what the manufacturers claim them to be.

Correspondence.

Very Large Cyst of Ovary.

TO THE EDITOR.

Sir: I had intended giving you the following exceptional case before this; but, owing to my indisposition to write, because I have some fear of being classified with the modern liars or at least exaggerators, I have deterred from doing so before.

But here is the case:

Mrs. S., twenty-eight years old; married; mother of two boys, six and eight years old respectively. Three years before she came under my treatment she gave birth to triplets. All died. From this confinement

dates her trouble. Indefinite pains through the pelvic region were soon followed by a tumor which developed quite rapidly up to the time I saw her, which was about two years after its first appearance. She was not over five feet two inches high, and had probably weighed before her illness one hundred and ten or fifteen pounds. An immense development of the disease had been in progress. Her abdomen hung over the pelvis to midway on her thighs, the recti muscles having probably ruptured. She measured over five feet around, and three feet from the lowest point of the abdomen to the highest level of the fluid, which I found at the fourth intercostal space. Her abdomen presented more the appearance of a huge sack, well-filled, than any other thing I know of. In aspirating I found the sticky, thick fluid characteristic of an ovarian cyst.

In company with Dr. Spence, of Waresboro, I tapped in April, withdrawing one hundred and forty pints of fluid, which I judged to be about one-half of the amount present. In May we returned to see the patient, who lived twenty-three miles in the country, and found the abdominal walls well retracted and removed sixty pints. There seemed to be some improvement in her general health. In June following we removed fifty-four pints. Our patient did not do so well after this operation, and in July following had an attack of diarrhœa, which, in company with her general weakness, carried her off.

I am satisfied that before the first operation, there were between thirty and forty gallons of fluid present, but the amount of two hundred and fifty-four pints, removed within sixty days, shows the enormous quantity contained in this cyst. Now let some one explain how an emaciated, weak woman, who probably didn't have seventy pounds of sound material in her body, could walk with five hundred pounds of a foreign liquid within her abdomen?

I find some consolation in adding several cases, similar to the above, found in Eliotson and Stewartson's *Practice of Medicine*, published in 1844. "It is surprising to see how much water is sometimes collected in cases of ovarian dropsy. I once saw an old woman who had had the disease many years and never would be tapped. At last, a certain quantity of water was let out; and we found that it amounted to eighty-four pints. . . . M. Chevalier says, that he once saw one hundred and thirty-six pints removed—all of which must have existed at once. . . . It only was drawn off at three or four times. . . . There is another case recorded where six thousand six hundred and thirty-one pints were taken away. It was not all removed at once; but was drawn off at eighty operations performed in the course of twenty-five years."

Yours truly,
W. P. Williams, M. D.

Way Cross, Ga.,
July 24, 1890.

Approval from India.

[The following is part of a letter from a physician in India, a native of that country, asking for a copy of the Reporter which failed to reach him in due time.]

The reason why I am so very much particular about Reporter is, that I have got a complete set of it, and when on the arrival of the mails I find that there is a break in the continuation of series, I am very much perturbed till the missing number returns. I must not disguise the fact from you that it is my peculiar delight to take up at random any back volume of your Reporter, just when I find occasion, when lo! it teaches me various things under captions of "Communications," "Lectures," etc., and when such is the case you will soon perceive how anxious—nay, impatient I am to see every number at hand regularly and without a break. In fact, I am very proud for the possession of the whole set of the Reporter, hence my anxiety not to see a break. Heartily wishing success to the Reporter forever and anon,

Very faithfully yours,
D. D. Bode, M. D.

Bombay, India,
June 27, 1890.

Notes and Comments.

Medicated Soaps.

At the meeting of the Royal Academy of Medicine in Ireland, held May 16, and reported in the *Medical Press and Circular*, July 2, 1890, the question of medicated soaps was discussed. Dr. Walter G. Smith made a communication on the subject, in which he drew attention to the differences in preparation and properties of soda and

potash soaps, and pointed out the injurious effects upon the skin of an excess of alkali, which not only removes the greasy dirt but also robs the skin of its natural fat. Overfatty soaps containing some unsaponified fat, represent a real advance in the preparation of good soaps for medicinal use.

The *Nouveaux Remèdes* has recently collected from various sources, the formulæ for a number of such medicinal soaps, which we quote from the *National Druggist*, July 15, 1890, feeling that they may prove of practical value to our readers.

The base for all these soaps is constructed upon the following formula, which is termed "basic soap" (Basis-seife).

Mutton suet, best quality	593 parts
Olive oil	74 parts
Caustic soda	222 parts
Caustic potash	111 parts

Mix, and make a soap.

1. *Resorcin and Salicylic Acid Soap.*—For the treatment of parasitic and seborrhœic eczema; also of great service in psoriasis, acne and ichthyosis:

Basic soap	94 parts
Salicylic acid	3 parts
Resorcin	3 parts

M.

2. *Resorcin, Salicylic Acid and Sulphur Soap.*—For use in acne vulgaris and acne rosacea, and in seborrhœic eczema, marked by deep infiltration of the skin:

Basic soap	84 parts
Resorcin	3 parts
Salicylic acid	3 parts
Sulphur, precipitated	10 parts

M.

3. *Resorcin, Salicylic Acid, Sulphur and Tar Soap.*—For use in squamous eczema and psoriasis vulgaris:

Basic soap	79 parts
Resorcin	3 parts
Salicylic acid	3 parts
Precipitated sulphur	10 parts
Liquid tar	5 parts

M.

4. *Quinine Soap.*—Found to be valuable in pityriasis versicolor, in the treatment of which it is made into a lather, and the latter allowed to dry on the affected parts:

Basic soap	97 parts
Quinine sulphate	3 parts

M.

5. *Hydroxylamin Soap.*—For psoriasis and eczema:

Basic soap	97 parts
Hydroxylamin	3 parts

M.

6. *Iodoform Soap.*—For use in the treatment of ulcerations in the legs, etc.:

Basic soap	95 parts
Iodoform	5 parts

M.

7. *Creolin Soap.*—For treatment of contagious impetigo, itch, intertrigo and hyperidrosis:

Basic soap	95 parts
Creolin	5 parts

M.

8. *Ergotin Soap.*—Used in cases of arterial hyperæmia of the skin (such as acne rosacea, congelations, varicose eczema, cicatrices marked by vascular dilatation, etc.):

Basic soap	95 parts
Ergotin	5 parts

M.

9. *Iodine Soap.*—Used in the treatment of scrofula, tumefaction of the superficial ganglia, chronic tumefaction (epididymitis, etc.), specific ulcerations and exanthemata, parasitory sycosis, favus, tinea tonsurans, pityriasis versicolor, etc.:

Iodine, resublimed	6 parts
Potassium iodide	3 parts
Basic soap	191 parts

M.

10. *Salicylic Acid and Creasote Soap:*

Salicylic acid	5 parts
Creasote	2 parts
Basic soap	93 parts

M. This soap has been found of great service in the treatment of lupus, psoriasis, seborrhœic eczema, parasitic sycosis, favus and tinea tonsurans.

Hot Wet Pack in Eclampsia.

In the *University Medical Magazine*, July, 1890, Dr. Barton C. Hirst reports two very severe cases of eclampsia occurring at the Maternity Hospital, which, although apparently beyond hope, yielded in an astonishing manner to the profuse diaphoresis following a hot wet pack, after other remedies, including venesection, had accomplished nothing.

In one case the convulsions came on in the second stage of labor; in the other after

delivery. There were in both cases seven convulsions. Coma was in both instances profound, lasting, respectively, more than two and more than five hours. The ultimate recovery was in both women entirely satisfactory.

The pack was given by wringing out four blankets in hot water, surrounding each lower extremity, the trunk under the arms, and finally the trunk and arms, with the hot, moist blanket, first slipping under the patient a rubber sheet and afterwards tucking a couple of dry blankets over the whole, the head being kept cool by cloths dipped in ice water. The sweating thus induced was profuse, and no doubt carried off the greater part of the poison in the blood, which is in these cases the prime cause of the convulsions.

This plan of treatment is in accord with our present knowledge in regard to the etiology of eclampsia. There are poisons in the blood, the result of tissue activity in both fetus and mother, which the kidneys, and probably other excretory organs, fail to dispose of. The action of these substances is probably to induce spasmodic contraction of the cerebral arterioles, and thus to produce acute cerebral anemia. Then comes the convulsion, with the determination of blood to regions free from muscular pressure —the brain, the lungs and other organs. A successful plan of treatment, therefore, must aim at evacuating as rapidly and in as large a quantity as possible the *materies morbi*. Drugs that lessen muscular action and dull nervous sensibility can be but temporary makeshifts until the more important object of treatment is attained. This can be secured by venesection, which, at the same time, evacuates a certain portion of the poison with the blood, relaxes the muscular system and relieves the dangerous congestion of brain and lungs; but the same result can be secured as well, if not better, by active diaphoresis, and later by free purgation. Dr. Hirst's conviction is that each of these channels should be employed, in a serious case, to clear the blood of excrementitious products. Venesection to a moderate degree can be practiced while the hot pack is being prepared, and after the patient is enveloped in the blankets two drops of croton oil, or a quarter grain of elaterium in butter can be placed on the back of the tongue. Chloroform is of course useful in the convulsive attack itself, and other drugs—bromides and chloral, veratrum viride and nitrite of amyl—are valuable adjuvants to the treatment, although they simply combat a symptom without reaching the root of the disorder.

Vaccine Fever.

At a meeting of the Greifswald Medical Society, January 10, 1890, Dr. Peiper, after referring to the observations of Jaksch in 19 cases of vaccination in children from 1 to 11 years old, presented the conclusions which he had reached after 23 vaccinations. In uncomplicated cases during the first days following vaccination, no elevation but rather a decline of temperature below the normal was observed. Between the forty-fifth and the one hundred and sixty-fourth hour the temperature gradually rose, the fever reaching its fastigium early, often in twenty-four hours. The highest temperature was from 100° to 104° F. The fever lasted from one to eleven days, but on an average only from four to six days. The decline was of remitting type, and generally to a point below normal. The fever did not appear dependent upon the intensity of the local manifestations; and the fastigium of the fever was not always coincident with the highest development of the pustule. Pulse and respiratory frequency displayed no peculiarities. In the stage of incubation of the pustule, the urine was considerably diminished in quantity. The observations of Jaksch were made upon children indiscriminately selected. Some were ill and some convalescent. The observations of Peiper, as reported in the *Deutsche med. Wochenschr.*, April 17, 1890, were made upon healthy children. The temperature was taken in the rectum, in the morning at 7 and in the evening between 7 and 8. It was found that the maximum normal evening temperature was 100° F. Vaccination was performed in 23 cases. Following, are Peiper's conclusions:

1. Vaccination in children is regularly attended with fever, which, at times, appears during the stage of incubation, from the first to the third day.

2. The beginning of the true febrile period occurs upon the fourth or fifth day. The fever lasts, as a rule, two and a half to four days; it is moderate in degree, unattended with threatening symptoms and declines gradually.

3. Fever unusually high or protracted points to the existence of complications.

Accidental Suffocation and Sudden Death.

In a paper in the *New York Medical Journal*, July 12, 1890, Drs. Hermann M. Briggs and William T. Jenkins, of New York—the latter of whom is Coroner's Physician—say:

The subject of sudden death and its causes does not often receive from physicians much consideration, largely, perhaps, because they are accustomed to consider that their responsibility has reached an end when death has occurred, or at least in these cases the responsibility is then delegated to the proper officials. Something more than a year ago one of us published a paper directing especial attention to one of the most frequent causes of sudden death, and one which has received but insufficient recognition—viz., the rupture of aortic aneurisms. In that paper attention was called to the infrequency of the determination of the cause of sudden death by physicians other than the coroner's physicians. In cases of sudden death among the poorer class the physician who may be called does not interest himself sufficiently in the case to request an autopsy, and among the better classes, even if the physician desires an examination, the friends usually object to its being made. The prevailing opinion among physicians is that the cause of sudden death in a large proportion of instances is some form of heart disease (especially disease of the myocardium) or cerebral hemorrhage, and to one of these causes death in such cases is usually ascribed.

We desire in this paper to direct attention to the frequency of accidental suffocation as a cause of sudden death and to report a series of cases, some of which have considerable interest because of their uniqueness. In children it appears to us that no other cause compares with this in frequency in the production of sudden death, and among adults it is far more common than is generally supposed. Excepting in those cases of accidental suffocation where death results from the lodgment of foreign bodies in the air-passages, the cause of death must often be determined by the detailed history, obtained only after careful questioning of the friends, by the external appearances of the body, by the general evidences of death from suffocation, found in the internal organs, and by the absence of any other determining cause for death.

In many cases the history, if carefully drawn out, will show that the subject was an epileptic or an alcoholic and was found lying on the face dead. If the subject is an infant, the history will probably show that the position in which the child was found was such that there was obstruction in some way of the openings of the mouth and nares. It is very painful to the mother and often quite unnecessary to bring out this fact too clearly. The external appearances are often of great value in determining the cause of death. In death from suffocation the blood usually remains fluid, and suggillation is very much marked. The position of the livor mortis on the anterior, posterior or lateral surfaces of the body often gives the key at once to the posture of the body at the time of death, and its absence at certain points on these surfaces indicates the points of pressure here, and sometimes from the stamp thus produced on the soft parts the character of the object producing the pressure may be determined. Internally the blood is found to be fluid, the heart is in diastole, the lungs and bronchial mucous membrane are deeply congested, there are, perhaps, petechial hemorrhages in the pleura and the pericardium, and there is a general congestion of the abdominal organs. The history in such cases, with the external and internal appearances just detailed, point in the most unmistakable manner to death from suffocation.

Drs. Briggs and Jenkins report in more or less detail the history of twenty-nine cases of sudden death, and state that cases of accidental suffocation, for convenience, may be grouped under the following heads:

1. Accidental suffocation produced by the lodgment of foreign bodies in the larynx or trachea; 2. Cases of accidental suffocation of infants by obstruction of the mouth and nares; 3. Accidental suffocation in epileptics during convulsions and in alcoholic subjects during intoxication; 4. Various other causes producing closure of the air-passages, including submersion, inhumation, strangulation, etc.

The cases grouped under the fourth head—those of submersion, strangulation, inhumation, etc.—form a separate class; the cause of death is usually apparent, and their consideration is omitted.

In conclusion, the following remarks are suggested:

1. Accidental suffocation is a common cause of sudden death, especially in children, and the cause of death usually escapes recognition.

2. Death produced by the lodgment of foreign bodies in the larynx or trachea occurs rapidly, and is sometimes almost instantaneous. The foreign body may be liquid as well as solid.

3. When death is instantaneous, it is probably the result of reflex inhibition of the heart's action.

4. In children the foreign body is usually some plaything that has been placed in the mouth, while in adults it is almost invariably an alimentary bolus, frequently meat.

5. The accidental suffocation of infants in bed by the bed-clothing and by "overlying" is a very common occurrence among the lower classes.

6. Death often results from suffocation during epileptic convulsions and during profound alcoholic intoxication.

Hernia of the Ovaries.

At the recent annual meeting of the British Medical Association, at Birmingham, Dr. Thomas More Madden read a paper on ovarian herniæ, in which he said that ovarian herniæ are amongst the most neglected, although clinically they should be included amongst the most important of the troubles that occur in gynecological practice. In the great majority of cases they occur downwards into Douglas's space and in such instances the left ovary is that most frequently displaced. The next in point of frequency of these herniæ are those occurring in the inguinal regions where they are either found above Poupart's ligament or is more commonly the case, follow the course of the canal of Nuck downwards and forwards, and so present in the labia where they may be readily recognized. In the former or directly downward variety of displacement, the ovary may be discovered on vaginal examination in the recto-vaginal fossa as a small, oval-shaped, firm, elastic and highly sensitive tumor, bulging forward into the post-cervical *cul de sac*. In the larger number of cases ovarian herniæ, especially those in Douglas's space result from the *vis a tergo* of abdominal or uterine tumors or from the tension on the appendages occasioned by displacements of the uterus.

Until recently these herniæ when inguinal were very generally compounded with enlarged glands; when labial with other tumors in that situation; and when downwards with pelvic abscess and hematocele. Or as often happens, they are mistaken for the retroflexed fundus uteri, and the patient suffering from an ovarian prolapse is vainly treated for a nonexistent retroflexion or retroversion of the uterus. There can now be no excuse for such errors. The sudden occurrence of the tumor, its physical character, the peculiar dull, sickening pain and the extreme tenderness and nausea manifest on examination are sufficient to enable a correct diagnosis to be made by any competent gynecologist.

Where the ovarian herniæ takes place through either of the abdominal rings or downwards into Douglas's space, it may in some instances be reduced, as any other herniæ similarly situated. In the majority of cases, however, such herniæ are irreducible when discovered, and must either be supported in the former case by applying a hollow truss whilst in the latter case the prolapsed ovary must be replaced if possible and kept in position with a peculiar form of pessary, exhibited, specially devised by Dr. More Madden for the purpose, or failing this, if the symptoms be urgent the ovary must in some cases be removed.

The foregoing views are illustrated in the paper of which this is an abstract by the details of several instances of ovarian herniæ, exemplifying the clinical history and treatment of such cases.

Atmospheric Bacteria.

The *Abstract of Sanitary Reports*, July 25, 1890, contains (translated from *La Rivista Internazionale d' Igiene*, June, 1890,) the following important conclusions with regard to atmospheric bacteria, which are formulated from a series of experimental valuations of sea-air, made by Professor Roster in the island of Elba:

The atmosphere of an island contains a much less number of bacteria than that of the mainland, and this irrespective of the direction of the wind with regard to the point of observation. The oscillations of atmospheric bacteria are much stronger on an island than on the mainland, owing to the alternate prevalence of sea and land breezes. The number of bacteria diminishes to an extraordinary degree when the wind blows from the sea, and correspondingly increases with the setting in of the land-breeze.

A very small extent of sea will deprive of bacteria air that has passed over the island, while a passage of 10 meters over land will

charge the atmosphere with bacteria. Atmospheric bacteria increase in numbers with the velocity of the wind.

Rain is a most effective agent for diminishing the number of atmospheric bacteria, whether by direct action in liberating the atmosphere of suspended germs, or by consecutive action in rendering the earth humid and impeding the passage of bacteria from the soil to the air.

The great reservoir of atmospheric bacteria is the superficial soil, from which they are detached and transported by the wind.

Other factors, less energetic than the direction and force of the wind, rain and the humidity of the soil, but which must be taken into account, influence the quantitative oscillations of atmospheric bacteria. The night air contains fewer bacteria than the air of the day, and the atmospheric bacteria are more abundant in August than during the months of September and October, when the temperature is lower and the fall rains begin.

Inebriety and Marriage.

Dr. T. D. Crothers, in an Editorial in the *Quarterly Journal of Inebriety*, July, 1890, says:

Public sentiment is shocked at the marriage of lunatics, and yet every day the lunatic inebriate is permitted to marry, and persons are ready to join themselves in such a contract for the purpose of curing them. In a recent murder case it appeared from the evidence that the murderer's father was married when intoxicated, and died a few years after by suicide. The murderer was the first child, and was a low paroxysmal drunkard, who had spent years in prison for crimes of drunken violence, and finally killed a passing stranger. In another case the courts refused to grant a woman a divorce who had recently married and found her husband an inebriate; a few months later this husband killed her in a drunken frenzy. In a certain family of entailed wealth there are living to-day, in the third generation, ten direct descendants who are feeble-minded, idiotic and insane; all clearly traceable to the marriage of an inebriate ancestor. The failure of the law to prevent and regulate such marriages, and the delusion that inebriety is a *vice* that is under the control of the victim, is one of the great obstacles towards social and legal reform. The efforts to raise the poor and degenerate inebriate and his family are practically of no value as long as marriage with inebriates is permitted. Recently the legislature of the State of Victoria in Australia has passed a law, which gives a wife the right of divorce if the husband is found to be a habitual drunkard. If after marriage she discovers that he is an inebriate she can also get a divorce. The husband can do the same with a wife if she is proven to be an inebriate. This is a clear anticipation of the higher sentiment which demands relief from the barbarous law which would hold marriage with an inebriate as fixed and permanent.

Operation for Habitual Dislocation at the Shoulder-Joint.

At the meeting of the Berlin Medical Society, July 2, 1890, Prof. Max Schüller showed a boy fourteen years old on whom he had performed, four years ago, an excision of the ankle-joint for an acute suppuration of the joint after an acute osteomyelitis of the tibia. The excision was subperiostal according to von Langenbeck's approved method. The shape of the new joint is now quite normal, so that it is of some difficulty at first sight to say which is the operated joint. Besides the usefulness of the joint is so complete that the boy can run, jump, climb and share in all sports and gymnastics as well as his fellows.

Dr. Schüller finally showed a good specimen of habitual dislocation of the shoulder-joint, which he treated by excision of the joint. The patient was a young woman who, for fourteen years, had had innumerable dislocations and at last could not use the arm for pains. Schüller found on the posterior part of the head of the humerus a depression made, he believes, by the pressure of the head on the inner border of the glenoid cavity, where it lay, seemingly, all the time. The glenoid cavity was eroded on its inner border and on the lower part it was irregularly sharpened as if it had been broken some time before. Schüller supposes, according also to his experimental studies [*Schüller's Surgical Anatomy* I, § 94], that in his case a fracture of the rim of the glenoid cavity was the first cause of the recurring dislocation. This fracture can have this effect then, if the patient, after the reposition, is allowed to use the arm before the fracture is healed. A fracture of the head and of the tubercula could not be found and the scapular mus-

cles were intact, as now, after healing of the excision, Faradization induces rotation of the humerus.

Salicylate of Sodium for Pruritus.

The *Medical Record*, July 19, 1890, refers to a case, reported by Dr. Wertheimer, of a woman suffering from universal cutaneous pruritus of nervous origin, for the relief of which he tried salicylate of sodium in fifteen-grain doses three times a day. After the third dose she enjoyed the first night's undisturbed sleep she had had for a long time, and by the fourth day all itching had entirely ceased. Smaller doses were given for a few days longer, and she has since remained free from any return of pruritus.

Treatment of Consumption.

It is reported that Dr. W. H. Burt, of Chicago, has recently proposed hyper-alimentation and the drinking of very large quantities of water as a cure for consumption.

Eight months ago, when reading of the change brought about in the obesity of Prince Bismarck through refraining from the use of water and carbohydrates, it occurred to Dr. Burt that an opposite treatment ought to result in the cure of all wasting diseases. He now states his belief that excessive eating and the excessive use of water will cure fifty per cent. of all consumptive cases in their first and second stages. He explained at length the tonic influence and power in building up tissue possessed by water, which forms three-fourths of the human body, and said that even in health six pints a day were necessary to meet the water waste, and in disease twelve pints.

At a recent meeting of the Chicago Medical Society, he is said, in the daily papers, to have pronounced the bacteria theory so popular of late to be pure nonsense. The treatment he proposed consisted in the free use of water every hour in the day, nine hours' sleep regularly, and, if possible, the sea or mountain air. Above all, the patient must look upon the drinking of water as his life. Regarding heredity as the great danger, Dr. Burt advocated the passing by Congress of a law forbidding the marriage of consumptives. With this in force, 100 years from now, he thought, consumption would not exist in the United States.

Victory for Homœopathy.

This is what the *Medical and Surgical Record*, of Omaha, says in its issue for July:

"And that as a rule means victory for the American idea of liberality. The grand old 'Empire State' of New York has rebuked the dominant spirit of the Allopathic school, that pre-historic spirit that clings to old ideas like leeches to a congested membrane. That spirit that would establish in free America an autocratic board of medical fossils, which would be governed entirely by Allopathic ideas, would arbitrarily give or take away from honest and capable practitioners their license to practice. The New York legislature refused to entertain any such a bill and almost unanimously passed the Homœopathic bill, which duly recognizes the rights of each school and establishes three departments or three boards of medical examiners which shall respectively pass upon the qualifications of persons applying for license to practice in the Allopathic, Eclectic or Homœopathic School in N. Y."

New York Polyclinic.

The catalogue of the New York Polyclinic which has just been received, shows for the session of 1889-90 the large attendance of 422. The faculty has resolved to exclude all but graduates of regular medical colleges from matriculating at this school, as the following extract from the catalogue indicates:

"Practitioners who are graduates of regular medical colleges, or who, having attended one or more courses of lectures at such colleges, have a legal permit to practice, will be admitted."

Mississippi Valley Medical Association.

The seventeenth annual session of the Mississippi Valley Medical Association will be held at Louisville, Ky., Oct. 3–10, 1890. The medical profession is respectfully invited to attend. The meeting promises to be of great social and scientific interest, as the profession of Louisville are doing their utmost to make it a success. Ladies accompanying physicians will be made especially welcome. Gentlemen wishing to read papers will please to send titles as soon as possible to the Secretary, Dr. E. S. McKee, 57 W. 7th St., Cincinnati.

NEWS.

—Dr. Eugene P. Bernardy has been appointed Physician to the French Consulate in Philadelphia.

—Telegraphic advices from Mecca, dated July 31, state that the cholera epidemic there shows no sign of abatement. The deaths from the disease average eighty daily.

—Dr. W. G. Stevenson, of Poughkeepsie, and member of the Board of Education, died July 31. Dr. Stevenson was graduated from the Medical College of Alabama in 1881.

—The Sanitary Council of Alexandria has issued orders that the regulations to prevent the introduction of cholera into Egypt be strictly applied to vessels from Red Sea ports.

—It is reported, under date of July 30, that the cholera epidemic is diminishing in Valencia, Spain. From ten to fifteen cases are reported daily, of which about one-half prove fatal.

—The plant for making ice and furnishing a cold storage house at West Chester, Pa., began operations July 29. The plant is a large one and very complete in all its departments.

—Dr. Morell Mackenzie has been compelled to defer his anticipated visit to this country—in which it was said he would lecture as he went about—until next year, in consequence of ill health.

—Manuel Garrutus, a Mexican, twenty years old, was found in the streets of New York, a few days ago, July 28, suffering from nausea. He was taken in charge by the police, when it was found he was a leper.

—The Board of Health of Norristown has received a report from the analysist of the Board, from it appears that the water supply of the town is polluted by cesspool drainage of the worst type, and is utterly unfit for household purposes.

—Information has reached Bonne Bay, Newfoundland, that a violent outbreak of diphtheria has occurred at Red Bay, a fishing settlement on the Labrador coast. The place is in a bad sanitary condition and it is said that more than half the people are ill.

—The deaths in Philadelphia for the week ending July 26, numbered 380; 57 less than during the previous week and 91 less than during the corresponding period last year. There were 44 deaths from cholera infantum; 40 from consumption of the lungs; 16 from inflammation of the lungs; 10 from typhoid fever; and 16 from whooping cough.

—Dr. William Brodie, one of the most widely known physicians in Michigan, died July 30, at his home in Detroit at the age of sixty-seven years. Dr. Brodie was graduated from the College of Physicians and Surgeons of New York City in 1850. He was at one time president of the American Medical Association, and was a member of numerous medical societies.

—Dr. P. M. Way, an old resident of Seaville, N. J., a graduate of Albany Medical College in 1852, narrowly escaped death at the West Jersey Railroad crossing, July 29. His horse became frightened and endeavored to cross the tracks ahead of an approaching train. The carriage was struck by the engine and demolished, but Dr. Way escaped with only a few bruises.

—The State Pharmaceutical Examining Board has given notice that registration, under the Pharmacy act of May 24, 1887, must be renewed every three years. All persons who are registered under this act are required to apply to the Secretary of the Board, H. B. Cochran, Lancaster, Pa., for renewal of registration about ten days before the expiration of three years from the date of their certificates, and enclose the fee, $1. As the act contains no provision for days of grace in applying for renewals, such applications must be promptly made, or the registration will be forfeited.

OBITUARY.

GEORGE D. CROSTHWAITE, M. D.

On May 5, 1890, Dr. George D. Crosthwaite died at his home in Rutherford Co., Tenn., aged 82 years. He had been a highly successful practitioner for fifty years. His mind was a store-house, not only of medical knowledge, but also of all branches of science and literature. He was a frequent contributor to medical journals, and for about thirty years a subscriber to the MEDICAL AND SURGICAL REPORTER. With his broad culture he combined fine conversational powers, and was much loved by all who knew him. His loss is deeply felt by the community and his professional brethren. His son, Dr. George W. Crosthwaite, continues the line of succession as a practitioner of medicine.

MEDICAL AND SURGICAL REPORTER

No. 1746. PHILADELPHIA, AUGUST 16, 1890. Vol. LXIII.—No. 7.

Clinical Lecture.

DYSMENORRHŒA.—SALPINGO-OVARITIS.[1]

BY E. E. MONTGOMERY, M. D.,
PHILADELPHIA.
PROFESSOR OF GYNECOLOGY, MEDICO-CHIRURGICAL COLLEGE; OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

Dysmenorrhœa.

Gentlemen: The patient I bring before you this morning is a woman nineteen years old, and unmarried, who suffers severe pain with each menstrual period. This has occurred during her whole menstrual life. The pain is felt for two days preceding the menstruation, and continues for four days. The patient as you see, is slight, frail, and not fully developed. The pain during menses, or so-called dysmenorrhœa, is a symptom which occurs as a result of a variety of conditions. Thus, we have attributed it to obstruction, in cases in which the cervical canal is in a state of stenosis; or the obstruction again may be the result of a flexion of the uterus, in which, at the angle of the flexion, the surfaces are firmly pressed against each other. Another form of obstruction is that in which there is a small growth occurring either in the mucous membrane or in the walls of the uterus, with a pedicle sufficiently long to permit of the growth being pressed into the orifice of the internal os. Another explanation of dysmenorrhœa is that which is known as the congestion theory. In this the mucous membrane of the uterus becomes filled with blood prior to the advent of the flow. The mucous walls of the organ become turgescent, producing a firm contraction, rendering the return of blood from the mucous membrane slow, so that these surfaces are swollen beyond the capacity of the uterine cavity, giving rise to intense pain from pressure on the terminal nerves of the mucous membrane. This theory is claimed as the explanation of pain in the majority of those cases which were formerly attributed to obstruction; and as justification for this claim attention is called to the fact that the pain is felt prior to the establishment of the flow; the flow once established, the congestion of the mucous membrane is relieved by the rupture of its vessels and the pain ceases. The third cause ascribed for such conditions is an inflammation of the endometrium and mucous walls, which renders the separation of this tissue during the menstruation more difficult.

Another form of dysmenorrhœa is that which is usually described as membranous dysmenorrhœa in which a more or less complete cast of the uterine cavity is thrown off. We have still another form of this condition, in which pain occurs for a week prior to the advent of the flow. In this, the pain is felt in either inguinal region. This form is that which is known as ovarian dysmenorrhœa. While it is true that there are some cases in which obstruction is the correct explanation for the distress experienced, yet in the majority of cases the trouble is caused by inflammatory conditions.

When a patient presents herself to you suffering from this symptom you should carefully investigate her history as to the length of time she has been menstruating; whether the periods are regular, what their duration is; the tendency to plethora and anemia; the amount and character of the pain; when it occurs, and the general nervous condition of the patient. Special attention should be directed to the latter, particularly in the higher classes of society. The demands of society, the close confinement to music and books during the period of the development of the genital

[1] Delivered at the Philadelphia Hospital.

organs, leads to an excessive development of the nervous system at the expense of the physical. The result is that the ovaries and uterus become imperfectly developed, and consequently perform their functions with pain. The condition of the patient under such distressing influences leads to a still further aggravation of the nervous symptoms, resulting in hysteria, or that state of hyperæsthesia known as neurasthenia; so that these patients suffer not only at the menstrual period from the local pain, but also from severe headaches which may occur before, during, or after the flow. In many cases, indeed, the nerve trouble is more marked than the local symptoms. In either case we find the patient suffering in the intervals between the menstrual periods with increased nervous manifestations, and with pain in the region of the back and ovaries, which is greatly aggravated for a week or ten days prior to the flow. The establishment of the flow leads to complete relief of the pain; in such cases, the flow is usually of long duration and free, amounting in many cases to hemorrhage. This profuse menstruation with the intervening nerve manifestations, leads to anemia; and the anemia again to profuse hemorrhage, so that the conditions act and re-act upon each other.

In the patient I bring before you this morning, anemia is a marked symptom. The plan of treatment in such cases would be first constitutional. If she is at school take her away and give her plenty of outdoor exercise. Make her discontinue music, reading of novels and attendance upon exciting amusements, and send her to the country or seashore. In these cases of ovarian hyperemia the administration of iron increases the flow and aggravates the congestion. It may be of use later when the nervous system has been brought under control and the circulation thus improved. Such cases should first be placed under a course of treatment in which the oxytocics, such as ergot, strychnia and quinine are administered. The diet should be one which is nutritious and easily digested; the bowels should be carefully regulated, preferably by remedies which tend to correct the condition, such as compound licorice powder or the extract of cascara sagrada.

After the menstrual flow has been decreased, the patient will be greatly benefited by the administration of mercury, iron and arsenic. These remedies have a marked influence in increasing the red-blood corpuscles, which are the oxygen carriers of the blood. If the ovarian congestion is not great, these remedies may be begun earlier, and where the patient is exceedingly nervous and does not sleep well, half an ounce of the compound syrup of hypophosphites may be given after meals.

These patients should be kept in bed during the menstrual period. In some cases the remedies we have mentioned will not correct the condition, and the pain will continue to be a serious symptom. In such it may be necessary to resort to the use of opium, chloral, tincture of pulsatilla, tincture of aconite, or the extract of cannabis indica. Each of these remedies will be useful in some cases. It is preferable, however, to avoid opium where possible, and those cases which are so severe as to need it, should be subjected to a physical examination, and operative treatment, if necessary, to remove the cause. Hot applications over the abdomen and the application of mustard plasters are often useful; but in cramp-like pains occurring at the advent of the menstruation the application of the ice bag to the sacrum will prove most effective in the majority of cases. I have seen patients who were suffering agony and looking a greenish yellow as the result of severe pain, in whom all intense unpleasant symptoms disappeared within a few minutes after the application of the ice bag.

Where the pain is intense at each menstrual period and is unrelieved by the method of treatment pursued, the patient should be subjected to an examination in order to determine its cause. Where it is found that the cervical canal is stenosed or flexed, the patient should be subjected to an operation for its correction. This is best accomplished by mechanical dilatation. Following the dilatation, applications should be made to the uterine endometrium to correct the inflammatory condition. In making these applications the cervical canal should be protected by an instrument, so that only the uterine mucous membrane should receive the remedy. The vaginal tampon saturated with glycerine should be applied beneath the uterus; and in cases of flexion, so placed as to support it.

In cases of marked flexion, the uterine stem of glass or vulcanite will often afford entire relief. In cases in which the uterus is flexed and its walls so inflamed that the organ cannot be straightened, the cervix

should be split up to permit the straightening of the canal. Electricity has been recommended for the correction of these conditions. It is applied by introducing a positive pole into the uterus and applying the negative pole with a large electrode over the abdomen and using a current of high power. This application has to be repeated a number of times in order to prove curative. Acquired stenosis of the uterus and consequent dysmenorrhœa are the frequent results of the early methods of treatment, when nitrate of silver and strong caustics were the fashionable methods for treating diseases of the uterus. These resulted in the formation of cicatricial tissue, which caused stenosis of the uterus. Pain from menstruation may also be the result of inflammation about the uterus, especially that of the Fallopian tubes and ovaries. These cases were formerly known as pelvic cellulitis and peritonitis.

Salpingo-Ovaritis.

The patient I now bring before you is a woman about 24 years old, who suffers from menstrual difficulty with more or less pain during the menstrual intervals. Upon examination it is found that the uterus is bound down and immovable. A mass is felt to the right side and posterior to the uterus which is quite tender to the touch. The pain in this region is considerably aggravated during, and immediately following, each menstrual period. The condition we have to deal with here is undoubtedly one of inflammation of the Fallopian tubes and ovaries. Such an inflammation may arise from one of two causes: either sepsis following parturition or abortion, or extension of gonorrhœa. Now, as there is no history in this case of the first cause having proven the origin of the condition, it is quite probable from her manner of life that the second has been the source of irritation. This poison causes an inflammation of the lining membrane of the uterus, which extends to that of the tube, giving rise to profuse discharge of an irritating character, which glues up the external end of the tube and results in an accumulation within the tube cavity. In mild cases this forms a condition known as hydrosalpinx. Where, however, the inflammation is more severe, it goes on to the formation of pus, when it is known as pyosalpinx. The latter is a more frequent condition when it is originated by gonorrhœal inflammation. With the development of an inflammation so severe as to result in pus, the surrounding tissues become involved, giving rise to extensive inflammation of the cellular tissue as well as that of the peritoneum.

These are the conditions which were formerly known as para- and peri-metritis. These terms, however, explain the presence of conditions which are secondary to the original cause and, consequently, are not so acceptable as the newly-endorsed term for this disease which is salpingo-ovaritis. With the development of this inflammation, the tube and ovary become heavy, sinking down in the pelvis, and are glued fast to the tissues in their immediate vicinity, producing a condition in which they are subject to constant irritation from the peristaltic action of the intestines, which necessarily leads to agonizing pain. These patients were formerly treated by rest, alteratives and counter-irritation, such as blisters, hot-water stoops, etc., which would relieve the patient temporarily; but every exposure to cold and every menstrual period would witness a relightening up of the inflammatory condition. Thus the patient would be condemned to a life of constant invalidism, rendering her a burden to herself and every one about her.

The developments of abdominal surgery have demonstrated that such cases are curable by operative means. A short time ago a case of this kind came under my observation, in which the plans of treatment above mentioned had been conducted for a length of time without any very definite results. Upon an examination I decided to resort to an operation. Opening the abdomen, everything was found matted together, and it was difficult to determine a landmark. After some manipulation the uterus was found and the parts enucleated from it. Proceeding from the fundus of the uterus outward on either side a mass was felt which was recognized as the degenerative tubes. These were removed after some difficulty, but the parts were so friable that in their removal the ligatures cut through. The bleeding was arrested by the application of a solution of iron and a drainage-tube was introduced. The patient subsequently recovered. This is only one of many cases of this kind in which operative methods resulted in cure, after long years of invalidism under methods of treatment by the administration of medicines. Apostoli has recommended electricity in the treatment of these conditions. While this agent may have a beneficial influence in inflammatory conditions which have not gone on

to the formation of pus, yet we cannot believe that it is the correct procedure in those cases in which pus is present, nor do we believe there is any power in this, or any other agent, to restore the function of organs which have become so firmly bound down and whose caliber has been, in part, obliterated by adhesive inflammation.

If the agent is inadequate to the restoration of the function, the argument is ineffectual against the removal of these organs. Organs, as the seat of diseases probably purulent in character, are worse than useless, as they undermine the health of the individual without offering any compensation; consequently their removal is robbing the individual of something which is of no further use to her.

To return to the patient before us, I do not think it is just to her or ourselves to assign a specific cause to every inflammatory disease of these organs. Many inflammations may be explained by cold and exposure during or following a menstrual period in a woman who has previously suffered from endometritis, and repeated attacks of this character may lead to suppuration. Therefore, we will not malign the character of this patient by assigning an absolute specific origin for her disease. That there is pus present in her tubes is quite evident to my mind from an examination I have made, and I shall advise the removal of the appendages and will perform the operation before you if the patient consents.

COMMUNICATIONS.

SURGERY *VERSUS* ELECTRICITY IN THE MANAGEMENT OF SALPINGITIS AND ALLIED CONDITIONS.

BY ANNA M. FULLERTON, M. D.,

PHYSICIAN IN CHARGE, WOMAN'S HOSPITAL, PHILADELPHIA.

There is no better vantage-ground for the study of disease and the method for its management than that afforded by hospital practice. Here, if anywhere, opportunities for careful diagnosis are obtained; varied plans of treatment may be followed, and their scientific value may be established.

The very large gynecological practice connected with the Woman's Hospital in Philadelphia affords especial facilities for the study and treatment of the class of cases referred to in this article. Hence, it is from a standpoint gained after several years of close observation that I desire to show my reasons for considering the electrical treatment of salpingitis and allied conditions as unscientific and productive of results far more dangerous than those of the knife.

The conservative tendencies of old-time workers connected with the hospital, and above all, perhaps, the difficulties formerly thrown in the way of the mastery of surgical methods by women, led to the almost sole employment in the Woman's Hospital for many years of what are known as conservative methods of treatment—douches, poultices, fomentations, blisters, electricity, etc., in preference to the more radical procedures of surgery—excepting in cases requiring minor operations. The extravagant claims of Apostoli, acting as an *ignis fatuus*, drew several of our students to his clinics in Paris, whence they returned filled with his enthusiasm, only to lapse, after a few months' personal trial of his methods, into an inexplicable silence concerning them. The generous excuses sometimes offered as to the probable reason for their failure in attaining his claimed results could not satisfy the inner consciousness of either speaker or hearer.

In the light of the nineteenth century, the attempt to treat a diseased condition of doubtful nature, location and origin by uncertain means, which may or may not meet existing needs, savors too strongly of empiricism. The Mohammedan woman, dying in a harem, where the customs of her people have shut her away from all medical aid save such as her hand or tongue, thrust through a slit in the curtain of her bed, might indicate, is no more blindly treated than are many of the women in our own land with whom obscure conditions of disease may be found buried beneath the tissues enclosed by the pelvic walls.

It must be conceded by all, in this day, that scientific methods in the management of disease require, 1, certainty of diagnosis; 2, a careful study and thorough understanding of the means best adapted for the cure of existing conditions; 3, the proper application of such means.

By what occult power can the electrician determine the exact character of the condition that exists in any given case, or the propriety of directing his current upon it? Although he states that "if it is true that

we cannot diagnosticate disease with accuracy, we should, in justice to the patient, adopt a line of treatment suited to all the conditions that cannot be excluded"—making, as it were, a universal remedy of electricity. He tells us again, "To accomplish this result requires some circumspection, as it is well known that intra-uterine applications are apt to relight the slumbering fires of even sub-acute conditions."

Here he acknowledges the dangerous character of the remedy he uses, and, were he frankly to disclose the secrets of his clinical practice, would they not reveal what may be shown by the records of any electrical clinic; viz., that, even when used with circumspection — all known precautions against inflammatory complication being employed—the physician has frequently to be sent for to find the patient suffering from a traumatic peritonitis or allied affection induced by the electric current? If such results occur in the hands of those long conversant with the use of electricity, is it not criminal to place suggestions for its indiscriminate use before the minds of the profession generally?

Recent surgery in the hands of a few bold and skillful operators has done much for methods of diagnosis in pelvic troubles by proving the harmless nature of the exploratory incision in hands properly trained to the work. The use of the knife for diagnostic purposes should not be decried any more than that of the probe, if employed understandingly. Exploratory incision does not necessarily imply extirpation. The indiscrimate removal of unoffending organs is as reprehensible as the indiscriminate use of electricity.

The existence of abscesses in the connective tissue of the pelvis which Dr. Massey regards as primary and which he concedes "necessitate surgical intervention," have come to be regarded by surgeons of experience as largely secondary to intra-tubal or ovarian disease. It is the knife used for exploratory purposes which has proved this.

As a matter of clinical experience variations of temperature are of little value in the differential diagnosis of these conditions.

When the surgeon finds an inflamed distended Fallopian tube, the fimbriated extremity of which is firmly glued to the ovary, all trace of fimbriæ gone, the two organs so firmly bound together that any effort to separate them must destroy the integrity of one or both; when, further, he finds the tube constricted at interspaces throughout its extent, the dilated portions constituting separate pockets for pus, the attached ampulla pouring pus into a cavity or cavities in the ovary, he sees the utter futility of any power other than the knife for remedying the deplorable condition which exists.

Is it wise, therefore, to subject patients to loss of time and money while one uses experimental means for overcoming a condition which is an unknown quantity? Is it not because such methods have been largely employed, and surgery left as a last resort, that abdominal section has in the past been regarded as attended with "dangers and uncertainties"? May not the same objection be brought against any procedure; as, for instance, Cæsarian section—when left until the vital forces are unequal to the strain or when other procedures have produced complications which make surgery more dangerous? Witness the change in the attitude of the professional mind towards the graver obstetrical operations since the early recognition of existing needs and prompt and early action have attained their recent brilliant results!

Will not even Dr. Morris Longstreth concede that many women, reported to have died of typhoid fever, peritonitis, inflammation of the bowels, septicemia—puerperal or other—may have been the victims of some obscure, suppurative pelvic disease?

The fact that pelvic diseases among women are terribly prevalent well warrants the French saying: "*La femme est une malade!*" as also Tait's recent utterance: "For the greater part of my life I have been engaged in the study of, and practice amongst, the special diseases of women, and no conclusion is more firmly rooted in my mind than a devout thankfulness that I belong to the other sex!" This suffering existence which seems to be the lot of the great majority of women, should be a matter of serious thought and profound study on the part of the medical profession. Preventive measures should be as carefully investigated as curative. It does not do for us, however, to pretend, in the meantime, that we do not see that many of the lesions which exist are hopeless as to cure and require radical measures for relief. The sentimental theories concerning "the limbo of a neutral sex" can only have any weight with those not called upon to suffer. Even these objections are reduced to a minimum in view of the experience of the most noted

gynecologists who find that no mental or moral changes result from the ablation of the uterine appendages. Although it is desirable to possess the sum total of our organs in their perfection, I hold that it may be wisely said to any human being regarding the physical as the spiritual frame, "If thy right eye offend thee, pluck it out and cast it from thee; for it is profitable for thee that one of thy members should perish, and not that thy whole body should be cast into hell!" Who can conceive an existence more awful than that of a hopeless, painful, lingering invalidism, even when supported by the consciousness of sex? Perhaps in the development of our higher natures even the medical profession may come to look upon interests which affect the physical nature alone as of minor importance.

To illustrate the points I desire to establish, I will give a brief *résumé* of nine consecutive cases of abdominal section performed within the past week in which, during the absence of my colleagues, I was kindly aided by Dr. Joseph Price.

These were not picked cases, but simply such as happened to be in the hospital at the time.

Case 1. Ovarian cystoma. An English woman; 60 years old; single; brought to the Hospital suffering from peritonitis. She had a resistant tumor, apparently uterine, extending two fingers' breadth above the umbilicus and entirely filling the pelvis. Her suffering from pressure symptoms was extreme; the left leg being swelled to twice its normal size. The patient was unable to pass urine except when standing. The tumor had been diagnosticated as fibroid and electricity had been advised. The urgency of the symptoms and the patient's expressed wish led to operative procedure after two weeks' antiphlogistic treatment. Extensive omental and intestinal adhesions were found. The tumor proved to be a multilocular papillomatous cyst of the right ovary. Its lower portion had burrowed downwards into the pelvic fascia from which it had to be pulled out. The removal was difficult.

How much would have been achieved if electricity had been used in this case?

Case 2. Ovarian cystoma. A colored girl 17 years old, entered the Hospital with a history of irregular chills and fever accompanied by diarrhœa which had lasted some weeks. A fluctuating tumor was found reaching to the umbilicus. The pelvic organs were so drawn up that the relation of the tumor to them could not be determined. Cyst of the kidney could not be excluded. On operation, extensive and dense adhesions were found. A cyst of the right ovary was first removed, which evacuated nearly a quart of chocolate-colored fluid. The cyst of the left ovary, about the size of a large orange, was filled with fetid pus. It was adherent posteriorly to the descending colon, which was almost gangrenous at that point.

This patient had been under the care of two different electricians at different times. The particulars as to their treatment could not be obtained.

Case 3. Chronic salpingitis with adhesions; one very large cystic ovary; the other sclerosed. Patient, 40 years old, married for eight years; had had one child, seven years old; had a history of constant ovarian pain with scanty menstruation. A course of electricity, negative galvanism, applied per vaginam had been tried for two months, three times weekly, without benefit.

Case 4. One pus tube. In this case there was chronic salpingitis, and the fimbriated extremities of both tubes were occluded and adherent to the ovaries. Numerous peritoneal cysts studded the tubes. Adhesions were numerous, and removal was difficult. The patient was 28 years old; married; had had three children, and had been a constant sufferer with pelvic pain for eight years, following an attack of puerperal fever.

Case 5. Double pyosalpinx and abscess of ovaries. The patient was 18 years old; married two years. She had had one child ten months before admission to the Hospital, since which time she had been ailing. Five weeks before admission she was seized suddenly one night with intense abdominal pain, followed by an attack of inflammation of the bowels, with chills and fever. Thus she was brought to us. On removal both tubes were found immensely distended with pus; the ampulla firmly adherent to the ovaries, which were riddled with abscesses.

Case 6. Double ovarian cysts. They were the size of a hen's egg; the tubes were enlarged and occluded, and the fimbriated extremities were closed. The patient was 24 years old; married two years; has had one miscarriage. She has a history of profuse and painful menstruation, and was admitted into the Hospital with peritonitis.

Case 7. Hematosalpinx of right side, hy-

drosalpinx of left. This patient's ovaries were much enlarged. She was 29 years old; married eight years; had had two children and one miscarriage. She entered the Hospital for severe paroxysmal pains with flooding. She gave a history of one missed period. Electricity had been advised, also a dilatation with curetting of the uterine cavity.

Case 8. Tubercular salpingitis and ovaritis. This patient had pus in her tubes, complete occlusion of the fimbriated extremities, and a general tubercular condition of the peritoneum. There was accumulation of a large quantity of peritoneal fluid in her abdomen. She was 14 years old, and had a history of suppressed menses with abdominal enlargement. She had extensive adhesions.

Case 9. General pelvic exudation, burrowing pus-sinuses opening into vagina, and through right iliac fossa. Vesico-vaginal fistula. The patient was 27 years old; married two years. Two months before admission to the Hospital, she had had a difficult labor, terminated by forceps. At the time of her admission her temperature was 104°, and she had irregular chills. Shortly after she had discharge of pus from the vagina, and pointing of pus in the right iliac region. Abdominal incision showed the pelvic organs to be immovably fixed to the pelvis. The anterior face of the uterus was adherent to the abdominal wall. The exploring finger, carried to the right side of the uterus [1] found a sloughing mass the size of a walnut, which was removed. The pelvis was filled with pus, and the adhesions were too dense for further procedure. The abdominal and pelvic cavities were thoroughly washed out and drained.

The above cases illustrate the varied nature of pelvic inflammation. In how many of them would electricity have been of any benefit?

—A new fabric for surgical dressings has been invented in England, the very peculiar meshes of which are said to effectually exclude micro-organisms while permitting perfect ventilation. This material is elastic, pliable, very absorbent, durable, and may be washed. It is well adapted for hygienic underwear in place of flannel.

[1] Our microscopist has not yet reported the character of the tissue composing this mass.

EYE STRAIN AND NERVOUS DISORDERS.[1]

BY C. F. CLARK, M. D.,

PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY, STARLING MEDICAL COLLEGE, COLUMBUS, OHIO.

When many years ago Dr. Weir Mitchell and Dr. Wm. Thomson, of Philadelphia, advanced the doctrine that refractive errors were among the more common causes of headache, and related histories of cases to prove the correctness of their view, they little realized to what length their theory would be carried. They were met, and their views were combatted by many who are now found far in advance of the position they then occupied; but such is the conservatism and inertia which impedes our progress, that it has taken years for the facts they so clearly demonstrated to become matters of common knowledge in the profession, and even at this day there are many excellent physicians to whom it never occurs to refer a headache to such a cause.

It is no part of my intention in the present paper to make a partisan plea for the extreme views that have been advanced of late in regard to epilepsy and chorea; for, in in the first place, many of the questions involved are still under judgment, and, in the second place, such a plea would come more properly from a neurologist than from an ophthalmologist. I may be permitted, however, to review some of the evidence that has been presented, to make some remarks upon the present state of the question, and to relate the condensed histories of a few cases in my own practice which throw some light on the subject.

The term functional neurosis is applied to a greater or less number of diseases and conditions according to the theory held as to the causes producing these conditions. By some it is held that this term, like the term "idiopathic," was invented for a reason analogous to that which impelled the ancient Athenians to erect an altar "to the Unknown God" and is simply another means of acknowledging that the real cause has as yet evaded detection. These take for granted that, if we could but discover it, every functional manifestation would be found to be the expression of a material change of tissue: in other words, that an

[1] Read before the Ohio State Medical Society, June, 1890.

organic change takes place, but our means of investigation are not exact and searching enough to find it. They leave us to imply that at some millennium of pathological research there will be found in the nervous system the material cause for all nervous diseases; and, when some one high in authority as a clinical neurologist speaks of the probable existence of a "central lesion" accounting for some irregular nervous manifestation, our first impulse is to take it for granted that he is right in spite of the fact that we know that the most painstaking and minute microscopic examination has as yet failed to discover it. Of late years, however, the tendency of observers on this subject has been to give more and more weight to the evidence which has been gradually accumulating, and which tends to prove that a much larger proportion of nervous diseases are, properly speaking, reflex in their origin than was formerly conceded. And, even where a true, organic, central lesion has shown itself of a late period, that this may have been a result, rather than a cause of long-continued perverted action which has been kept up by some peripheral condition such as would be produced by a mechanical interference with the performance of some function. Be this as it may, we practically have to deal with certain nervous phenomena and perversions of nervous function which have never yet been traced to distinct pathological conditions of the nervous system, but many of which have yielded to treatment directed against some peripheral source of irritation, which could only produce these phenomena by what is often termed reflex action.

The question of how far peripheral nervous irritation as manifesting itself in the eye, may act to produce reflex nervous phenomena in other parts of the body has for many years been the subject of most careful and painstaking investigation at the hands of several observers most prominent amongst whom is Dr. George Stevens, of New York, and it is largely owing to the startling claims made by him and the nature of the proof brought forward in support of those claims, that the attention of the profession has been so strongly centered on this subject of late. Dr. Stevens is a special pleader, and much of the evidence he adduces is brought forward rather in support of a theory to which he is already committed than as so much material for an impartial, scientific investigation; but this may be said of almost every investigator who has in his nature a sufficient amount of the fire of enthusiasm to make it possible for him to do such work as Dr. Stevens has done.

From a careful consideration of the writings and reported cases of others, my own personal observations, and especially from a review of the evidence brought forward by the Stevens Commission and the comments on that report to be found in the medical journals, I am satisfied that an extremely unfortunate and imperfect presentation of the state of the question has been laid before the profession. The issue of Dr. Stevens' prize essay, afterwards included in his work on *Functional Nervous Diseases*, and the strong claims of cures of chorea and epilepsy made in many of the journal articles of the times elicited such a degree of interest that the New York Neurological Society in February, 1887, requested him to read a paper at one of their meetings embodying his views. In the course of the discussion which followed it was suggested and moved that a committee be appointed to examine the cases Dr. Stevens reported and after much conference, there grew out of this suggestion a plan of action for what has since been termed the Stevens' Commission.

This Commission was composed of some of the highest authorities among the neurologists and ophthalmologists of New York; their plan of action was prepared with the greatest deliberation, and promised all that could be desired to those concerned in fairness, exactness of method and scientific care for the elimination of all sources of error. Rules were adopted to govern the actions of those taking part in the investigation, and to read over these rules one would conceive that nothing was left to be desired, and here, at least the results of true scientific endeavor could be hoped for. The patients were to be selected by the Commission conjointly with Dr. Stevens, were to go through certain preliminary examinations, were then to be turned over to Dr. Stevens for treatment and operation, and in the end were to be returned to the Commission for final inspection. Careful, detailed reports were to be made from time to time, and finally, after a certain number of cases had been examined and treated, a report was to be made to the society.

On November 5, 1889, about two years and seven months after beginning work, the Stevens Commission made its report to the

New York Neurological Society. A brief *résumé* of their report was transmitted to the profession at large through the journal, and from this the medical profession made up its mind on the great questions involved. Now, if any member of this society has an interest in the diseases under discussion, or, lacking this, has an interest in the study of human nature as exemplified in doctors' differences, I would suggest to him to obtain from his bookseller the November and December numbers of the journal of Nervous and Mental Diseases and glance through this report. Made up, as it is, of detailed histories of cases with tabulated results, the plan of procedure pursued by the Commission and the correspondence arising out of many misunderstandings during the two years and more of work, it fills one hundred and two pages of this journal and occupies the whole of the November and a good share of the December number.

In it will be found the following summary of fourteen cases, which were considered proper for test cases: 5 chorea, 9 epilepsy.

Total "cured," 0.

Total improved, 6, 3 chorea, 3 epilepsy.

Total unimproved, 7, 2 chorea, 5 epilepsy.

Total unknown, 1, epilepsy.

It should be said in regard to a number of the patients marked "unimproved" that, according to their own claim and that of their friends, and the written evidence of several prominent neurologists not in the Commission, they were very much improved though they were not cured. After giving an account of each case the Commission concludes as follows: "In view of these facts, your committee cannot but express the opinion that, so far as this investigation has warranted a conclusion, the method of Dr. Stevens does not afford a sufficient degree of relief to patients suffering from chorea and epilepsy to warrant its adoption or recommendation to the members of the Neurological Society *as a means of cure or as a sole therapeutic measure.*" After prolonged discussion by the members of the Society, a motion to adopt the report of the Commission was carried by a vote of *five to four* out of the eighteen members present, the members of the Commission refraining from casting their votes.

I have gone somewhat into detail in discussing the action of this Commission because I am convinced that a careful study of the detailed reports of these cases will give to any candid student a very different impression from that which would be conveyed by the abstracts sent out in most of the medical journals. Note, please, the peculiarly guarded wording of this report: they do not recommend Dr. Stevens' method "as a means of *cure*," or "*as a sole therapeutic measure.*" Note that Dr. Stevens made a strong protest against reporting at the time, and brings what appears to be good evidence to prove that the conditions of the agreement were not fulfilled by the Commission. Read the correspondence between Dr. Stevens and some of the members of the Commission and note how an undercurrent of antagonism, based on something apart from the merits of the question at issue, seems to run through these letters, and how, in reading between the lines, one can catch a faint flavor of that unbrotherly spirit which is usually supposed to be a thing remote from the great luminaries of the metropolis and to be peculiar to the medical gentlemen of smaller towns. Note how the Commission was hampered in its work by Dr. Stevens' apparent obstinacy in not sending reports of cases. Note how, from a dignified body of profound scientists seeking after knowledge on an obscure subject, and essaying to define the relations which exist between certain sources of peripheral irritation and certain nervous manifestations, this body, or part of it, seems to have allowed some of its acts to suggest an inquisition, having for its object to force an unwilling victim before the bar of their society and to prove that his claims are mere pretension.

When we remember that these epileptics, who had been under the influence of bromides for years, were to have all medication discontinued, and that Dr. Stevens set to himself the task, which none can appreciate until he has attempted it, of perfectly establishing the equilibrium between the ocular muscles, we must at least grant him full belief in the theory he advances and the courage of his convictions. If, instead of the question whether Dr. Stevens has in any of the cases presented to him succeeded in attaining his high ideal of perfect muscular equilibrium, and by this means absolutely cured epilepsy, we ask ourselves, in the light of the evidence furnished by all the sources available in the report, whether he has not developed a therapeutic means of great value by his industrious and painstaking efforts, I think few will deny him that honor.

Undoubtedly Dr. Stevens has, in his enthusiasm, overestimated the proportion of

cases to which his theory is applicable, but it is ungenerous in the extreme, when at the expense of years of painful effort a real addition to our means of combatting disease is supplied us, not to frankly acknowledge it, and make some allowance for the author's possible overestimate of its value.

The ophthalmologist seldom has occasion to study cases of epilepsy, but, through the courtesy of Dr. McMillen, of the Central Ohio Insane Asylum, I was asked to see the following patient, whose history is of interest in this connection. I do not wish to be understood to put myself on record as one who is convinced that refractive and muscular anomalies are, or are not, at times radical causes of epilepsy. In my mind the question is still under judgment notwithstanding the weighty decision of the Stevens Commission, and I eagerly embraced the opportunity afforded me by Dr. McMillen to make at least a partial test of the principle involved.

Miss E. C., æt. 37, was brought to my office December 21, 1889. She was an insane epileptic, who for the past fourteen years had been an inmate of an asylum. She had had epilepsy since the age of twelve or thirteen years, but for many years the attacks were not so severe as of late. At the age of 18, and for several years after that time, her attacks were not of sufficient severity to prevent her from teaching school. Her convulsions, when seen, were of a violent nature, she often falling and cutting herself. Though she is insane at times immediately after the convulsion, there are intervals during which for several days she is rational, and though somewhat weakened mentally, is able to talk very sensibly and makes herself quite useful in household work and sewing. She complained of frontal headache and pain at the root of the nose on sewing or reading. She made a strained effort in attempting to see and exhibited a slight tendency to throw the head backwards.

Vision R. E. $\frac{4}{12}+1^s.+.5^c$ ax. $90°=\frac{4}{4}$.

L. E. $\frac{4}{9}+1^s.+.5^c$ ax. $90°=\frac{4}{4}$.

R. E. C. Atrop. $\frac{4}{60}+1.5^s+.5^c$ ax. $90°=\frac{4}{4}$.

L. E. C. Atrop. $\frac{4}{60}+1.5^s+5^c$ ax. $90°=\frac{4}{4}$.

Gave ℞ $O_2+1^s.+.5^c$ ax. $90°$.

For constant use.

Prism tests revealed two or more degrees of left hyperphoria; but, as I wished to test one feature of her case at a time, I left this uncorrected, merely giving the glasses to correct the compound hyperopic astigmatism.

This prescription was given December 21, 1889, and during the two weeks that intervened between this and the time when she obtained the glasses she had two hard fits, falling forward and cutting herself on one occasion on her lip. On April 23, 1890, four months after the examination, Dr. McMillen reported to me that our patient had taken no bromides since receiving her glasses, and, with no treatment whatever but the simple wearing of the glasses, had been entirely free from epileptic seizures. Remember she had previously had from one a week to one a day. Her general condition, he stated, had improved both mentally and physically, and there seemed to be no cause to which this result could be attributed but the relief afforded the eyes by the glasses.

Those who are enthusiastic believers in the Stevens doctrine and are willing to go the full length, will tell me that all I have to do is to perform a graduated tenotomy here and I can permanently relieve our patient of all her sorrows. It may be so. I hope it is, and would certainly be glad to make any exertion in my power to relieve such a poor suffering mortal and demonstrate such a glorious principle as that these unfortunate creatures can be emancipated from their terrible curse by so simple a process. Those who are more skeptical of the Stevens doctrine will tell us about the long intervals which often occur between paroxysms in these cases under the influence of some strong mental impression, or even without any cause that can be assigned. They will bring up the old question of post hoc and propter hoc and talk of coincidences. Now I must avow that, while with me the question is still under judgment, I am a little skeptical of this theory of coincidences when it must be so far-fetched as in the present case. Though I confess that the general doctrine of coincidences receives some support from the fact that, since the Democratic administration has taken the asylum in hand, our patient has had a fit.

In chorea, as in epilepsy, my experience has been comparatively limited, and so far as it has gone, leads me to the belief that, while often an important factor in maintaining the state of nervous excitability and inco-ordination seen in this disease, it is far from demonstrated that refractive errors and muscular anomalies are in a large proportion of cases its prime cause. The use of glasses overcoming refractive anomalies has frequently in my experience proved of great

benefit in cases of chorea, but, owing to the lack of opportunity to observe and study the cases thoroughly, and the well-known tendency of this disease to spontaneous recovery, I have been slow to draw conclusions from the comparatively limited number of cases I have seen. I have known the instillation of atropia, producing paralysis of the accommodation, to cause prompt and almost complete cessation of the movements in a case of several years' standing, and a similarly good result to follow the wearing of glasses correcting the hypermetrophia which I had hoped to be the real cause. But in this same case the jactitations returned in a few days in a most violent form on comparatively trivial excitement and in spite of the glasses.

It is true that here there was present, in addition to the hypermetropia an esophopia of 2–4 degrees, which the enthusiasts for the Stevens doctrine might claim should be corrected; but, though I have satisfied myself by repeated operations of the practicability of Dr. Stevens graduated tenotomies, and consider them a valuable addition to our resources, I am not yet prepared to operate for so slight a defect as this in one of the internal recti muscles.

With the exception of ocular headaches, which are found in so large a proportion of the cases appealing to an oculist, there are perhaps none of the indirect effects of muscular and refractive errors which it gives him more frequent pleasure to relieve than those irregular nervous symptoms which may be grouped under the name of neurasthenia. To have a patient return and express the relief that he has experienced on finding that the simple wearing of a pair of carefully adjusted glasses will remove life-long, distressing symptoms, which he had never attributed to his eyes and had pursued in vain with all manner of drugs, is an experience which gives to the oculist a pleasure equaled only by that which follows a successful cataract extraction.

The following case will illustrate how far-reaching the effects of a trifling degree of hypermetropic astigmatism may be, and how the real cause of the trouble will evade detection unless the misleading nature of many of the symptoms is understood. Miss M. E., a tailoress, was brought to me by the physician, in whose care she had been for some weeks. To him she had complained of the following symptoms: For some six months she had suffered with severe aching in the body and limbs to such an extent that she could not sleep at night; she had indigestion and was troubled greatly with constipation and had many of the symptoms generally classed under the head of spinal irritation. Among her less important symptoms she also mentioned some blurring of letters and tiring and aching of the eyes on use; but this was only in keeping with her general neurasthenic condition and thus at first attracted no special attention. While she complained of some temporal headache, the frontal headache which is so characteristic of eye strain was absent. The conditions of the case were carefully studied, the usual means were adopted for meeting such symptoms, and, as no result seemed to follow, various changes of treatment were resorted to from time to time, but all without avail. Nothing seemed to make any impression whatever, and, as the doctor expressed it, he was rapidly becoming disgusted. Familiar with the importance of refractive anomalies as a cause of reflex disturbances, the extent of the general nervous disorder in this case was so out of proportion to what he had been accustomed to see that for some weeks such a solution of the problem did not occur to him. But, after reading Dr. Ranney's late work on nervous diseases, and noting the important place which that author gives to such conditions and the cases he cites in illustration, he determined to test the matter at least. An examination under the influence of a mydriatic revealed in the right eye: V. $= \frac{4}{5}$, with a low degree of hyperopic astigmatism corrected by $+ 5^{c}$ ax. 90°. In the left eye: V. $= \frac{4}{6}$, with a low degree of compound hyperopic astigmatism corrected by $+.25^{s}$ D. $+ .5^{c}$ ax. 90°. With the above glasses vision was $\frac{4}{4}$; but before the use of the mydriatic this hyperopic astigmatism, owing to slight constant spasm of the ciliary muscle, had appeared to be myopic instead of hyperopic. A $+ .5^{c}$ ax. 90° for each eye was prescribed to be worn constantly, and a short time afterwards the doctor reported to me that not only were all the eye symptoms relieved at once, but that from the day the glasses were worn all the troublesome nervous symptoms disappeared as if by magic. Four months later, and at intervals since that time the same report has been given when I have inquired. Complete and permanent relief was obtained, and this, please note, from the use of cylindrical glasses of only .5 of a Dioptric, that is, a glass of about six and

a half feet focal distance. We have here entire relief from the most distressing nervous symptoms by the correction of a refractive error which for years, and until within only a very short period of time, many of the highest authorities on the subject of refractive anomalies have considered so trifling as to be entirely disregarded.

In view of the hundreds of cases that might be taken from the note-books of any busy oculist, to illustrate this principle of the far-reaching effects of disturbances of this nicely adjusted nervous mechanism, it is not surprising that even such strong claims as those of Dr. Stevens should receive a patient hearing, though we may not yet be willing to go the full length with him. While the cases heretofore described illustrate the effect of refractive anomalies, the following case will serve to show how, not only mal-adjustment of the external recti muscles, but other and entirely different forms of peripheral irritation may produce the same effect. Mr. D., æt. 50, a lawyer, applied to me in March, 1889, for a change in his reading glasses, which he found necessary owing to an increase in his presbyopia. I had examined him some five years before, when he used presbyopic glasses for the first time, and in 1886 had persuaded him to wear constantly glasses for the correction of a moderate degree of hypermetropia and astigmatism. The tests on both these occasions were made with the eyes under the influence of homatropine, great care being taken to make the results as accurate as possible; and a fair degree of comfort was obtained though, in spite of all our efforts, he was never able to use his eyes with the degree of satisfaction I had hoped for. Being sedentary in his habits, of a nervous temperment and a great student, it was not thought strange by the patient or his physician that he should have certain nervous symptoms, and he was from time to time under treatment for dyspepsia, restlessness, etc. He would go to bed tired after an evening's work, spend a restless night, and awake unrefreshed in the morning. He was troubled with eructations, and his comfort was seriously interfered with by abdominal distension in the evenings, to such an extent that it frequently became necessary for him to loosen his clothing. While for all these symptoms, and many other evidences of neurasthenia he had been under treatment by his family physician, he was comparatively free from the frontal and occipital headache which is so often found in asthenopia, and his complaints to me were mostly of tiring of the eyes and a vague sense of discomfort in their use. In order to leave no question as to the hyperopic and astigmatic correction of the eyes, they were subjected for several days to the action of a four-grain solution of atropia, and another test was made; but, though the mydriatic was used to the extent of producing more or less constitutional symptoms, very little change could be detected in the degree of refractive error. Allowance was made for the increased presbyopia, and some months later the patient reported that he wore both the distant and near glasses with comfort, though later inquiry established the fact that this "comfort" did not mean absence of the neurasthenic symptoms above described but merely relief of those symptoms which the patient had attributed to his eyes.

In December of the same year, as his eyes were once more uncomfortable, he reported to me again when, with the Stevens' phorometer, I detected an exophoria, very slight at distance, but in accommodation quite marked. This was due to insufficient power of convergence, and was corrected by adding to the reading-glasses a 2° prism, base in, in combination with each lens, which by that addition corrected the hyperopia, presbyopia, astigmatism and insufficiency of the internal recti muscles. These glasses were given on December 20, 1889, and on April 29, 1890, the patient returned, stating that they "gave immediate relief" to all the head and stomach symptoms. He has had no headache since; and has been perfectly well. The bloating in the evenings, nervousness, insomnia, nervous twitching, etc., were all relieved. He has "been like a new creature," has worked hard almost constantly and until late at night, but awakes refreshed in the morning. Note that all this change was wrought by the relief afforded to a pair of slightly weakened internal recti muscles by a two-degree prism on each eye.

If such a case demonstrates the profound and far-reaching systemic effects which, in certain nervous organizations, may result from an apparently trifling source of peripheral irritation, what shall we say when without a discoverable change taking place in the condition of the eyes, the patient tells us that all the old symptoms are returning? On the same day that he made

my heart glad by this account of five months of entire emancipation from all his miseries, he stated that, without any cause that he could discover, his old troubles were, during the last few days coming back upon him. An exhaustive examination with lenses, prisms and the phorometer revealed refractive errors properly corrected and perfect orthophoria. The power of abduction was still eight degrees, and the power of adduction was twelve degrees, which indicated no change in the condition of the muscles. I gave him a pair of fronts with still stronger prisms for trial, but without much hope of success, as the phorometer tests revealed no increase in the muscular error and strong prisms are seldom well borne. There, however, seemed no other resource. But what was my surprise when a few days later he reported that he had discovered that the return of his distress was due entirely to a carious tooth, that its successful treatment had relieved every symptom, and that now, by the aid of his old glasses, the weak prisms, he could work as much as he pleased just as he did before.

In this case I think we have a clear demonstration of the principle that two distinct sources of peripheral irritation, totally unlike in their nature, and either of them so slight as to evade detection by ordinary methods of observation, may in certain sensitive organizations produce the same disturbing symptoms in distant organs, which symptoms may be out of all proportion to the causes which excite them.

ASTHMA TREATMENT DONT'S.

BY THOMAS J. MAYS, M. D.,
PHILADELPHIA.

Don't consider that one mode of treatment will suit all classes of asthma.

Don't forget that asthma is a reflex manifestation and that its cause, which may reside anywhere in the body, must be sought and an effort made to remove it.

Don't omit to look for the possible cause in the nasal passages, the bronchial surface, stomach, liver, bowels, uterus, ovaries or in some rheumatic or gouty dyscrasia or some specific cachexia.

Don't fail to realize that, as a rule, asthma is more rapidly amenable to treatment in men than in women.

Don't lose sight of the fact that nothing is more conducive to a cure in severe cases of asthma than perfect physical rest: this is of primary importance.

Don't allow a patient to suffer in an attack of asthma, but cut the paroxysm short by administering a hypodermic injection, consisting of $\frac{1}{60}$ of a grain of strychnine and $\frac{1}{150}$ of a grain of atropine. If this brings no relief in ten minutes, which it rarely fails to do, inject $\frac{1}{8}$ of a grain of morphine.

Don't discontinue the strychnine and atropine after the first relief is afforded, but administer both daily in this manner and in increasing doses until their physiological effects are reached and until a thorough impression is made on the disease. This is generally accomplished with from $\frac{1}{25}$ to $\frac{1}{20}$ of a grain of strychnine and about $\frac{1}{100}$ of a grain of atropine, in the course of ten days or two weeks, after which these same maximum doses are employed every other day until the patient is relieved.

Don't, in the meantime, omit to give your patient phenacetin (4 grs.) or antipyrin (7½ grs.) with small doses of quinine every four hours.

Don't, in treating the complications of asthma, overlook that carbolic acid or creasote, inhaled through a respirator, allays the bronchial catarrh; that magnesium sulphate, taken at night, regulates the secretions of the alimentary canal; that potassium iodide cures a specific cachexia, and that surgical attention to the generative organs is sometimes of importance.

Don't overlook the fact that asthma depends on a depraved condition of the nervous system, that simultaneous disease in other organs depends on the same source, and that by building up the nervous system, which should be the ultimate aim of all remedial efforts, the attendant complications will also be removed.

—It has been recently reported that a new Danish Pharmacopœia is in course of preparation. In order to harmonize it with the Pharmacopœias of Sweden and Norway, delegates from these countries will be represented. It would be more in harmony if Scandinavia joined their issues, and the three countries got out one Scandinavian Pharmacopœia.

Foreign Correspondence.

LONDON LETTER.

British Medical Association Meeting at Birmingham. — Mr. Lawson Tait.—Mr. Jordan Lloyd.—Surgeon Parke.—Another Fasting Man.—Decline of the Glycerine Enema.—Hepatic Derangement or Senile Dementia.

The advent of the meeting of the British Medical Association can now be counted in days, and, beyond a doubt, it is likely to be a more than ordinarily successful affair. Upwards of two thousand visitors are expected, and as the sparse hotel accommodation of the town is limited to a quarter of that number, many visitors will be somewhat at a loss for a resting place. There are many good-sized towns, however, within easy reach, and a goodly proportion will be received in private houses. The annual dinner of the Midland Branch has been held, and some interesting facts were mentioned in the after-dinner speeches. It seems that long ago the properties of digitalis were originally described by a Birmingham physician. One of its earlier surgeons, Freer, wrote what was for a long time the standard work on aneurisms, and in the general hospital the operation of tying the external iliac artery was first performed.

It may be safely said that the reputation of the place is not likely to suffer in the hands of the present representatives of the profession who are doing a lot of go-ahead work. One of them, Lawson Tait, has just had the honor of receiving two well-earned distinctions. The Edinburgh College of Physicians has given him their prize "for the greatest benefit done to practical medicine by applying surgical means for the relief of medical cases." The other is the Liston Jubilee Prize awarded by the Edinburgh College of Surgeons for "the greatest benefit done to practical surgery in the triennial period prior to June, 1890."

Another Birmingham surgeon, Mr. Jordan Lloyd, has done much good and original work in the anatomy and surgery of the kidneys, and he is expected to furnish some interesting results of his researches in the anatomy and surgery sections. It is instructive to note the number of young men who hold a front rank in the town.

Surgeon Parke will be quite the hero of the hour. Stanley is expected to attend the meeting in person to do honor to the medical officer of his great expedition whom he speaks of in his book as "the rarest doctor in the world. . . . A combination of sweetness and simplicity . . . so unostentatious and so genuinely unobtrusive." Indeed, nothing could be warmer and more appreciative than the terms in which the great explorer describes the services of Surgeon Parke. The precaution of the latter in vaccinating the whole of the members of the expedition on the voyage between Zanzibar and the Congo resulted in saving them entirely from that pestilent scourge of Africa, small-pox. Not a single soldier or carrier contracted the disease, although it was sometimes raging all around them. These facts may be recommended to the notice of the anti-vaccinationists. Emin Pasha seems to have behaved rather shabbily to Surgeon Parke, to whose skill and attention in the German hospital he almost certainly owed his recovery after his accidental stroll through a first-floor window.

Yet another fasting man at the Westminster Aquarium. Succi has hardly made his bow and retired gracefully to star the provinces than he is to be out-starved by a successor, Jacques, who is now well embarked on a six weeks' fast. The Frenchman is drawing poor houses, for the novelty of the previous performance has somewhat taken the wind out of his sails. The *Times* explains this falling-off by the theory that "his condition is not yet sufficiently painful to those who obtain pleasure from watching the process of self-torture." Jacques asserts that he has discovered a powder of herbs, of which a small quantity daily will support life for many weeks. The general impression is that this elixir is obtained from Kola nut, a fruit that is found wild in Congo. It is supposed to have been the active ingredient of a famous biscuit introduced by Professor Germain Sée in 1885 for the use of the French soldiers in Algeria, and which enabled the chasseurs to perform wonderful feats of endurance. Kola nut is said to act as a powerful stimulant of the cerebro-spinal system. So far, scientific opinion seems to bear out the assertion as to its sustaining power, though it is probably effected by the sapping of reserve nervous power. Hence, one is not surprised to hear that people who indulge in its use "die young."

A treatment that has fallen out of fashion of late is the glycerine injection. Perhaps

half a dozen are now prescribed where fifty would have been ordered not so very many months ago. There are certain practical advantages about the method, such as its convenience and its safety for young and old. There are obvious obstacles, however, in the way of rectal administrations ever becoming popular amongst the laity. At the same time it may be questioned if the profession as a whole is fully alive to their value.

An amusing tale is told of an old fogy who acted as a medical officer to a provincial institution. Thirty years of practice had impressed him with a full sense of the importance and dignity of the liver in the human economy. With pomp and circumstance he would justify his position towards the organ by pointing out its size, its functions in digestion, its relation to the blood, and its many nervous connections. Every other case he sent in for admission to the wards was under the presumptive diagnosis of hepatic mischief. One day, however, a reasonable ground seems to have suggested itself for departing from the usual course, and the receiving officer of the day found himself thrown on the horns of the following dilemma: "hepatic derangement or senile dementia." D. W.

PERISCOPE.

Phagocytosis.

The *Abstract of Sanitary Reports*, July 4, 1890, contains a translation from *La Rivista Internazionale d' Igiene*, May, 1890, on the results of Metchnikoff's latest experiments in regard to the theory of phagocytosis, or the destruction of micro-organisms by the white blood corpuscles. To form a clear conception of the attitude of scientific opinion towards this theory it must be borne in mind that the resistance of the invaded organism to the invading micro-organisms is variously explained, now from the physico-chemical point of view, now from that of cellular biology. According to Baumgarten, a low temperature renders cold-blooded animals immune against tuberculosis. Behring attributes the immunity of frogs against the bacillus anthracis to the degree of alkalinity of the blood. Buchner has put himself at the head of a school of investigators who claim chemical microbicide properties for the blood serum. In opposition to these theories of the neutralization of morbid activities stands the theory of phagocytosis.

Recent experiments with the virus of the anthrax in pigeons mark a new phase in this theory. That pigeons are refractory to the bacillus anthracis has been proved by numerous observations, and explained according to the several modes of accounting for immunity in general. For example, Hess invariably verified phagocytosis, while the Baumgarten school absolutely denied the intervention of the destructive white globules. Another interesting side of the controversy was the determination whether in the passage through the organism of the pigeon, the anthrax virus undergoes an attenuation, as affirmed by Omler and Kitt, or a reinforcement of virulence, as asserted by Roux.

Metchnikoff's experiments show in the clearest manner that repeated inoculation imparts a progressive potency to the bacteridium which traverses the pigeon's organism. But the demonstration of particular importance to phagocytosis was the constant infiltration of leucocytes at the point of inoculation, proving that the micro-organisms were taken up by the microphagi or polynucleate leucocytes, the protoplasm of which is not adapted to common aniline coloration, and by macrophagi, or white cells of one nucleus, the protoplasm of which reacts with methyl blue. The strife between the micro-organisms and the cells was manifested with the most complete accentuation. The micro-organisms frequently showed signs of incipient degeneration, while phagocytes were as frequently observed which had lost their power of vital resistance. That the bacilli were generally living when absorbed Metchnikoff proved by their mobility, by their reaction with an old solution of vesuvian and by the following experiment: He put a drop of exudation taken from a pigeon into broth heated to a point which annihilated the life of the phagocytes while permitting a luxuriant development of germs, which he followed through the various successions of bacillary development. To demonstrate the virulence of the germs he obtained cultures of bacilli contained within the leucocytes.

In conclusion, Metchnikoff does not claim exclusiveness for his theory. He does not consider one isolated fact sufficient to explain the complex vital phenomena of immunity, and he has always conceded that the progress of investigation may lead to the determination of other interesting factors of

immunity, phagocytosis remaining the principal phenomenon of the process.

Fixation and Application of the Retention Catheter.

In the *Centralblatt für Chirurgie* for April 19, 1890, Dr. Emil Pilz, of Vienna, describes a method of fixing a catheter for long periods in the male bladder. The method has for many years been used by Professor Dittel and his pupils and is simple and safe. A fine pin and a strip of adhesive plaster about nine inches long and two inches wide are all that is required.

Having thoroughly syringed the urethra, a Nélaton catheter, previously sterilized in 1-1,000 corrosive sublimate solution, is lubricated with vaseline and introduced so far into the bladder that its fenestra is completely beyond the sphincter vesicæ. The proper place having been found, the needle is thrust transversely through the catheter close to the glans penis, and its sharp end is snipped off, care being taken that the penis is not elongated. The catheter is thus prevented from slipping further into the bladder. To guard against ulceration from pressure of the needle, a perforated strip of plaster is slipped over the catheter and placed upon the head of the glans penis below the needle. To prevent the catheter slipping out of the bladder the strip of plaster, with a longitudinal slit, is slipped over the catheter up to the needle. Both ends of the strip are fastened to the penis, the one upon the dorsum, the other upon the under surface, and additionally fixed by circular turns of the strip. It is important to begin the turns at the glans to avoid venous stagnation and œdema. The equal pressure exerted by the plaster prevents erection with unavoidable displacement of the fenestra at the neck of the bladder. Other positions of the penis have no influence upon the situation of the catheter; nor is lateral escape of the instrument possible. A slight modification is necessary when employing an English or metallic catheter, the protracted use of which from the annoying pressure they occasion, should be restricted. The needle could also be used with the English catheter, but it passes with difficulty through the hard rubber of the instrument; and, on account of the orifices which remain, the catheter is rendered unsuitable for subsequent use. It is, therefore, better to wrap securely about the catheter, beyond the head of the penis, a small strip of plaster, over which is tied a ligature, the extremities of which are fastened to the penis by circular turns of another strip of plaster, and additionally tied to the pubic hair. In the case of the metallic instrument the thread is simply passed through the rings of the pavilion to the penis and there fastened.

Following are the indications for the use of the retention catheter: 1. To prevent the flow of urine over certain parts of the urethra and consequent infiltration, as in traumatisms of the urethral mucous membrane. 2. To exert moderate yet constant pressure, in those forms of urethral stricture, the dilatation of which, either from their nature or on account of the high febrile reaction which always follows, produces little improvement or is extremely painful. In the latter cases, the elastic retention catheter (the English and metallic instruments are but poorly borne), aids greatly in the gradual dilatation of the cicatrices. 3. In a third group of cases, the catheter permits the evacuation of the urine, protecting the intact urethral mucous membrane, as after litholapaxy.

The Use of Digitalis.

Dr. Egbert Le Fevre, of New York, says of digitalis, in the *New York Medical Journal*, July 12:

Many writers maintain that it is dangerous to give digitalis in aortic regurgitation, as the tendency to death from syncope is increased by the lengthening of the diastole and the consequent increase in the amount of regurgitation. If digitalis merely slowed the heart, the objection would hold good; but with its inhibitory action it also has the power to delay the relaxation of the cardiac muscle, especially during the first part of diastole. It is this power which exerts control over the dilating pressure of the regurgitant stream and, by maintaining for a longer time the pressure in the aorta, increases the blood-supply of the cardiac muscle. In aortic regurgitation the dose must be as small as possible in order to obtain the desired therapeutic effect.

In treating the degenerations of the cardiac muscle independent of valvular disease two things are to be considered: To lighten the work of the heart; to increase its nutrition. Digitalis in these cases not only acts as a stimulant to temporarily arrest the

failure of the degenerated muscles, but also produces nutritive changes. At the same time, by the action of the drug upon the blood-vessels, the tension in the aorta is raised and the work of the heart is increased. This can be counteracted, to a certain degree, by the use of the vaso-motor dilators.

In the cardiac dilatation which follows the hypertrophy caused by renal and arterial diseases, digitalis must be given with extreme caution, for, by its power to raise the blood pressure, rupture of a diseased artery (especially in the brain) may be induced. Although dilatation is usually the result of valvular lesions, or dependent on one or the other form of degeneration of the myocardium, still cases are constantly occurring which, in their auscultatory signs, simulate those of organic causation. They occur in those cases attended by extreme muscular debility and relaxation. The murmurs heard in the mitral area are due to imperfect or irregular contractions of the ventricle, which allow a temporary insufficiency of the mitral valves; or, by the stretching of the papillary muscles and chordæ tendineæ, the valves are carried too far into the auricle, an audible regurgitation being produced. Digitalis, by its tonic and trophic action, causes the murmurs to disappear, and, with good blood, may be said to cure the disease.

The beneficial effect of digitalis in that condition known as "irritable heart" may be explained by its power to strengthen the musculo-motor apparatus and render it less susceptible to reflex irritations.

Sun-burn.

The term "sun-stroke" has very properly fallen into disuse since its incorrectness was proven, and the word heat-stroke has been substituted. It now seems that the term "sun-burn" is not exact. Dr. Bowles, of Folkstone, an experienced Alpine climber, says, in the *Archives of Surgery*, that he has noticed that blistering and irritation of the face do not usually arise from direct relations to exposure to the sun, but rather to the effect of light which has been reflected from snow, and which seems thereby to become peculiarly irritating. So long as snow is avoided, the tourist may encounter hot sun with but little risk, whereas sometimes the face gets burnt in walking over snow when there has been no sun at all. The same may be said of the white sand at our seashore resorts. One may be exposed daily to the sun's rays in the city without experiencing any irritation, whereas a day, or even a few hours, at the seashore will almost blister some persons.

Black is well known to absorb heat, and black clothing is avoided in hot weather; the fact that dark-skinned people bear sun well, whilst albinos and leukodermics blister very easily under its action, must probably be due to some influence exerted by the pigment. Bronzing of the skin, when slowly induced either by the sun or by the snow (as well seen in all dwellers at Mount Moritz), exercises a protective influence, and certain native races, recognizing this, color their faces when about to encounter sun exposure. The *British Journal of Dermatology*, July, 1890, states that some years ago Unna proposed to color the faces of children suffering from atrophoderma pigmentosum with turmeric, during the spring and summer months.

Trichophytosis of the Scalp.

Tinea tonsurans is, according to Dr. Brocq, in the *Journal des Maladies Cutanées*, May, 1890, a local parasitic disease; and an external treatment is always justifiable, but this may be augmented with advantage by a constitutional treatment. The constitutional or general treatment consists of the exhibition of cod-liver oil, antiscorbutic syrup,[1] syrup of iodide of iron, arsenic, etc. Sojourn in the country or at the sea-side, with sulphur or salt baths, will also be found beneficial. The prophylactic treatment consists in the prevention of contamination with persons who are suffering from the disease, or, in other words, rigorous isolation. All children affected with tinea tonsurans. The head should be shaved immediately, washed with soap and water every morning. The scalp should be kept covered with some impermeable bandages or dressing. Under no circumstances should this covering be removed in the presence of other children who are free from the disease.

The proper local treatment as advocated by Dr. Brocq, is as follows:

Shave the entire scalp, or else cut the hair as close as possible. Wash the scalp with hot water and ordinary soap or tar or naphthol soap. The hair over the diseased sur-

[1] Antiscorbutic syrup is a preparation described in the French Codex, and is a compound syrup of horseradish. See *U. S. Dispensatory*, p. 257.

faces should then be epilated. Immediately after epilation the bared surfaces should be washed with bichloride solution, 1-500 and 1-250; a few hours later the following ointment should be applied.

℞ Lard . . . . . 30 parts
Oil of sweet almonds and glycerine, each . . . . . 4 "
Yellow sulphate of mercury . . . 1 part
Mix.

The washing with bichloride solution and inunction with the above-given ointment should be performed every morning and evening. Epilation should be repeated three or four times a month.

Another course pursued by Dr. Brocq is, after epilation to apply the following lotion twice a day.

℞ Water . . . . . 400 parts
Glycerine . . . . . 100 "
Bichloride of mercury . . . . . 1 part
Mix.

The amount of bichloride of mercury may be diminished or increased according to the tolerance of the scalp. Next, the diseased portions of the scalp should be uniformly rubbed with the following ointment.

℞ Yellow subsulphate of mercury . 1–2 parts
Lanolin . . . . . 30 "
Vaseline . . . . . 10 "
Mix.

The scalp should be washed as frequently as necessary and the new hairs epilated. After about two or three months of the foregoing treatment and a continuation of the epilation, it may be alternated with painting with iodine, friction with turpentine and carbolized glycerin and a protective dressing of iodized vaseline.

Remarkable Rupture of the Uterus.

A patient was shown last week before the French Academy of Medicine with a history that is probably unique both in respect of the lesion, and of her survival. In the course of a labor obstructed by pelvic deformity, the uterus was ruptured, but at first laparotomy was refused. Twenty-four hours later, version was resorted to, but though the trunk was easily brought down, the head remained fixed, and had to be detached. Laparotomy was then consented to, and on opening the abdomen, the practitioner found the head lying free in the cavity of the peritoneum, but it was only after a tedious exploration that he was enabled to identify the uterus, which was completely separated from its vaginal attachments, and was located in close proximity to the under surface of the liver. Only the Fallopian tubes and a few shreds of the broad ligaments remained. Though by no means sanguine as to the patient's chance of recovery, the practitioner put the uterus back in its proper position, and stitched it there as well as he could. Being in the country he naïvely tells us that no antiseptic precautions were possible. He did the best he could under the circumstances, and—most remarkable of all—the patient made a prompt and uninterrupted recovery. It would be unkind to criticise a line of treatment which was sanctified by such a brilliant and unhoped-for result, but one would imagine that the removal of the uterus would have afforded the best chance for the patient. —*Medical Press and Circular*, July 2, 1890.

Phenacetine for Insomnia.

Dr. F. Peyre Porcher, of Charleston, S. C., writes to the *New York Medical Record*, July 12, 1890: "I desire to call special attention to the extreme value of phenacetine as a remedy for insomnia. Given at night in a little water it is tasteless, innocuous and induces sleep. I am confident, also, after repeated trials, that it is the best and most unobjectionable substitute for morphia. It causes sleep when, of course, pain is in abeyance, unless the pain be more than ordinary, and morphia hypodermically may then be required. The remedy may be repeated and the dose increased to seven or ten grains.

"Suffering from chronic rheumatism of the forearm, I have tested it repeatedly in my own person, and have given it to many who have suffered from insomnia, or inability to sleep from any transient cause, fatigue, nervousness, excitement, etc., in either sex.

"I see that sulphonal has recently been advised. No accusations have ever been made against phenacetine, whereas, sulphonal, antipyrin and antifebrin have at times been found to possess toxic qualities.

"I have made comparative tests of the four agents, and believe that phenacetine has a great future for the two purposes above indicated. It may also be used in children who are sleepless from fever or excitement."

THE

MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

LEPROSY SCARE.

We call the attention of the readers of the REPORTER to an article published in another part of this number, containing an editorial opinion from the *New York Medical Journal* in regard to the way in which the authorities in New York acted in view of a case of leprosy which was recently discovered in that city. This conduct was a reflex of that extreme of caution which characterized the behavior of the Philadelphia authorities in view of a similar case which was fully discussed in the REPORTER of April 19, 1890. It is with gratification that we find so able a journal as the *New York Medical Journal* taking practically the same stand in regard to this matter as the REPORTER has already taken a number of times.

The way in which the leper in New York and the lepers in other American cities have been treated by the authorities is one which would be regarded as in the highest degree outrageous, if it were not for the fact that a number of medical men, and especially medical men connected with Health Boards in various parts of the country, have by their personal and official action sanctioned the notion that leprosy is contagious, and increased the unreasonable fears entertained in regard to it by those unfamiliar with medical science. Any one who is acquainted with the facts in regard to leprosy must know that, while there are some men who hold that it is contagious, the evidences upon which this opinion rest are so imperfect and so limited that it is with the greatest difficulty that they can establish anything like a demonstration of their opinion. The REPORTER has always presented a fair picture of medical opinion in regard to this subject, publishing without hesitation testimony which tends to show that leprosy is contagious, as well as that which tends to show that it is not contagious—in the ordinary acceptation of this term; and we do not hesitate to state that there is absolutely nothing in the history of leprosy, in the experience of countries where leprosy is common, or in the United States, where it is very rare, to warrant even a very small fear in regard to its development here. It would be interesting to know if a case could be found anywhere in the United States in which leprosy had developed here, or in a native of this country. All the cases of which we have any knowledge have been imported cases, and we believe there never has been a case in this country of the communication of the disease from one individual to another. The facts indicate very plainly that there is no reason to dread the spread of leprosy in this country from such cases as have been heretofore reported.

Of course, we do not mean that persons afflicted with fully developed leprosy ought to be allowed to associate with their fellows without the observance of any hygienic precautions, because, in view of all the facts,

it seems possible that leprosy may be communicated by prolonged and intimate association; but this is as much as can be truthfully admitted in regard to the supposed contagiousness of leprosy, and we believe that the forcible apprehending, isolation and practical imprisonment of a leper is an outrage upon his personal liberty and utterly unjustified by those principles of regard for public health which are thought to excuse such action in the case of diseases which are acknowledged to be highly contagious.

Not long ago, as stated in an editorial in the REPORTER of January 25, 1890, Judge Thayer, in Philadelphia, declared from the bench that he would shoot any man who would attempt to take him against his will from his house to a public hospital if he were suffering with small-pox. Such a statement made by a highly respected member of the judiciary of this city, furnishes a striking commentary upon such performances as were reported in the case of Professor Proctor and in those of all lepers who have been discovered recently in the cities of the United States. The legal aspect of these cases do not concern us, except as citizens, liable at any time to similar injustice; but as medical men we have a responsibility founded upon our greater knowledge in regard to health and disease; and those who know that such treatment of lepers is as unnecessary as it is oppressive owe it to the community to protest against the sanction given to it by the alarmists in and out of the profession. We are glad to find the *New York Medical Journal* take the stand which the REPORTER has so long maintained, and hope that before long other influential molders of medical opinion will range themselves alongside of it.

NAPHTHALIN IN DYSENTERY.

Since the value of intestinal antisepsis has become recognized, the treatment of dysentery has been attended with great success; yet stubborn cases are not infrequently met with, which seem to defy the most rigorous treatment. Such a case is reported by Dr. Cesari Minerbi, in the *Riforma Medica*, April 17, 18 and 19, 1890. All the usual therapeutic agents available in the disease had been tried, including calomel, creasote, and sublimate both internally and in the form of clysters, and finally even electricity; but without success. Suppositories composed of cocoa-butter and finely powdered naphthalin were then tried; one suppository being introduced high up in the rectum after each movement of the bowels. The treatment was continued for a week, at the end of which time the patient was cured.

Since then Minerbi has treated all the cases of dysentery that have come under his care with naphthalin. He found, however, that, as the diseased condition was not confined to the lower bowel, and as the action of the drug in suppositories was confined to a limited area, clysters containing the drug reached further, and gave correspondingly more satisfactory results. On account of the difficult solubility of naphthalin in water, sterilized olive oil was used as a vehicle, and the effects of the method were increased by warming the clysters. Each clyster contained seventy-seven grains of naphthalin in about seven fluid ounces of hot sterilized olive oil. During the first few days of the treatment the injections could not be retained as long as was desirable, on account of tenesmus, and three or four clysters were given in twenty-four hours. As soon as the symptoms of irritation abated and the dysenteric stools became less frequent, the patients were able to retain the injection for five or six hours, and therefore only two were given each day. During the last few days of the treatment only one was given in twenty-four hours. The injections were administered always immediately after a movement of the bowels.

In addition to this local treatment, Minerbi prescribed three pills a day, containing each one-twentieth of a grain of corrosive sublimate and three-quarters of a

grain of creasote, in order to check the fermentative process in the bowels. In all, twenty-two cases of dysentery were treated thus, and in every case a complete cure within two weeks was the result.

Dr. Minerbi has also used clysters of naphthalin and olive oil in eleven cases of oxyuris vermicularis, with complete success. In these cases, children were given injections containing from fifteen to twenty-four grains of naphthalin in from one and a half to two fluid ounces of oil, and adults from seventy-five to ninety grains of the drug in from two to three fluid ounces of oil. A complete cure was obtained in every case in less than a week. Dr. Minerbi observed no unpleasant accompanying symptoms to follow the use of the naphthalin.

Such results indicate that naphthalin is fitted for a useful rôle in the treatment of inflammation of the lower bowel and that it is a valuable addition to the medical armamentarium.

JOHNS HOPKINS HOSPITAL.

The Johns Hopkins Hospital has just issued a magnificent book describing the history and present condition of this unrivalled institution. The book is of beautiful letter-press and illustrated with prints and phototypes which are in entire harmony with the subject and the manner in which it is treated. The book opens with the letter of Johns Hopkins, of Baltimore, dated March 10, 1873, describing to the trustees his gift of thirteen acres of land, and containing a promise of one hundred thousand dollars a year until his death and after that the income of a property worth over two millions of dollars.

The progress of development of the Hospital from that day to the date of its opening, May 7, 1889, is indicated rather than described by the letter and address of Mr. Francis T. King, President of the Board of Trustees, and the address of Dr. Billings on the opening day. The details of construction are complete and clear and those into whose hands this book shall come will have before them a record the like of which has never before been produced. It is at once a monument to wise and princely benevolence and of honest and prudent administration. Our country may be congratulated upon what this book shows and Baltimore upon being the seat of such a hospital.

The work of the Johns Hopkins Hospital is of a high order of scientific merit. It is the work of picked men from the whole country, who have at their disposal all the facilities which almost unlimited means can afford and associations which make the labor of each a help and a stimulus to every other one. Already interesting and valuable scientific communications are appearing in the stated publications of the Hospital and more may be expected as time goes on.

INTERNATIONAL MEDICAL CONGRESS.

The tenth International Medical Congress opened in Berlin, August 4, with great brilliancy. Prominent Government officials graced the occasion and Prof. Virchow occupied the Presidential chair. On August 5, a great banquet was given to the visitors to the Congress, and the throng was so great that many of them are reported to have failed to get into the banqueting hall. On August 7, the Congress rejected a proposition that the next meeting should be held in St. Petersburg, because of the repressive treatment of Jews in that country.

The scientific papers were numerous and of great value, some of the most important being contributed by American medical men.

No accurate reports are at hand in regard to the presence of French medical men. For a few months before the meeting of the Congress an unfortunate discussion was going on in France, in regard to going to or staying away from Berlin as a test of patriotism. It was hoped that this would not keep the best of the French members of the medical profession from

participating in such a scientific gathering; but it may have done so. It is said that about two hundred French physicians attended the Congress.

As a whole this Congress seems to have been a very successful one; and the profession will await with interest the publication of its scientific proceedings.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

We have received from French, Richards & Co., Philadelphia, specimens of sulphur and cream of tartar tablets, each containing five grains of washed sulphur and twenty grains of bitartrate of potash. These are pleasant to the taste and easy to administer. They simplify very much the frequently difficult matter of choosing a good laxative for children. Sulphur has peculiar properties as a laxative, which are sometimes missed, because ordinarily it is an unpleasant remedy. But the tablets of which we have received specimens remove this objection to its administration, and put the advantages of sulphur within easy reach of the physician and his patient.

Correspondence.

Insane Asylum Management.

I regret to notice that a Philadelphia medical journal in an editorial in a late issue (June 21, 1890) criticizes the recent action of the Pennsylvania State Medical Society for the resolutions it passed relating to the government of the State insane asylums. This journal scarcely does justice to the intelligence of the members of the State Society when it says: "few gave the subject enough attention to comprehend it."

The question of employing female physicians in the State asylums and of relieving the superintendents of all duties which do not belong to a medical man have been agitated for a number of years. These questions have been up before the Legislature several times. At a number of the meetings of the State Medical Society these questions have been freely discussed. There have been warm advocates on both sides. Ample time and opportunity has been given to the opponents of this innovation to say and write all they could in opposition to it. Now after the matter has been discussed thus at length it is fair to presume that the vote of the State Society was a fair and intelligent expression of opinion on the subject. It was not "sprung upon" the Society or "railroaded" through, for every one interested in the matter knew very well that resolutions recommending these changes to the Legislature would be proposed. They had been offered at former meetings and were defeated. This very fact alone is powerful evidence that the members of the State Medical Society became willing to recommend these changes only after thinking and talking over and discussing them from year to year.

Now, as to the merits of the questions themselves. It is well known that the successful operation at Norristown of the proposed plans has started the agitation of these questions. A distinguished member of the Norristown Board of Trustees remarked that they were well satisfied with the workings of the plan there, and felt that it was the best plan for the Norristown Hospital. He, however, did not feel like attempting to thrust his plans upon the other State hospitals, as their environments might not be the same as those of Norristown. In other words, he felt sure that it was the best plan for Norristown, but did not know enough of the other asylums to know whether the same plan would be equally desirable for them or not.

Now I hold that the State Hospitals for the Insane are so constituted that what would be beneficial to one would be beneficial to all. It is wrong in principle to give one man entire charge of a hospital containing 800 or 1,000 patients. Legislative act says, that "He shall appoint and exercise entire control over all the subordinate officers and assistants in the institution, and shall have entire direction of the duties of the same." The by-laws of one of the State hospitals says: "He shall visit all the patients daily or learn their condition. He shall have entire direction of their medical, moral and dietetic treatment; and his instructions respecting them are to be implicitly obeyed by all persons about the establishment."

Most men have whims, eccentricities, "odd notions" or "fads," including superintendents of insane asylums. Of course, many

of these eccentricities of the superintendent will be fastened upon the asylum of which he is the head—the imprint of them will be very manifest. It may be said that the board of trustees of an asylum is a check to the superintendent. Yes, it is—but in a very limited way. The Board can tell whether the supplies are bought at fair prices or not, whether the buildings are in good repair or not; can judge as to the condition of the stock, etc.; in short, it can keep trace of the material interests of the asylum. But as to the other—the medical side of the hospital, they must depend entirely upon the superintendent; for, with only one or two medical members of a board of trustees who spend half an hour or an hour in the wards of the asylum every three months, surely the Board cannot be said to be intimately acquainted with the workings of the essential —the vital part of the asylum.

A by-law of one of the asylums reads: "He (the superintendent) shall have charge of the grounds and farm, together with the stock, furniture and fixtures." In other words, the superintendent is to directly supervise the work of the carpenter, the engineer, the farmer, the gardener, the cook, the store-keeper; he is to employ and discharge these and their subordinates; he must pay bills, receive moneys for board of patients, direct the work of the clerks, make all purchases, etc., etc.

In addition to these "extra medical" duties he is to "visit all patients daily or learn their condition;" he must appoint his own assistant physicians and direct their work. He must employ and discharge, as he sees fit, all attendants and supervisors. He admits and discharges all patients, receives and answers all letters pertaining to patients. Of course it is his province to classify patients, arrange for their diet and clothing; for their amusement and religious opportunities.

It is very absurd and puerile to put forth the argument that the administration of medicine constitutes only one (and that a small part) of the treatment of the insane. The friends of the old system are surely too hard pressed for arguments to make so much of this argument, which is recognized as a truism by the veriest novice in psychiatry. Of course it goes without saying that regulation of the diet, the clothing, the amusements and the exercise must continue to be distinctly within the province of the medical officers. The superintendent must have the right to say, "I want the heat turned on the building or off," but he ought not to have the trouble himself of sending for coal, paying for it, employing men to handle it. He ought to have the right to say whether the patients shall have pork, beef or veal, but he ought not to be burdened with the task of making or even directing the purchase of these food stuffs.

Of course the province of the steward must be accurately defined. Norristown can be taken as a guide and any existing defects in the workings of the plan there can be corrected in drawing up rules for the other asylums.

If there is anything more in the treatment of the insane than nourishment, shelter, "tonic No. 1" and routine amusement, then a superintendent needs all his time to devote to treatment of his patients in the widest sense of the word.

As to the advisability of placing the female patients under a female resident physician—female assistants—I will speak again. I wish the State Society had gone further and defined the status of the assistant medical officers in the asylums. The fact that in most of the asylums the assistants that receive and hold their appointments by the grace of the superintendent tends to make them lose their spirit of manly independence. Although they are often men of thirty-five or forty years of age, who have served faithfully ten or twelve years, yet they have no more say in the management and general *policy* of the hospital than the tinsmith or the bell-girl. Superintendents naturally become jealous of their power—they feel it would be a lowering of their dignity to consult their assistants as to regulation of the diet, the plans for amusing the patients, the scope and character of their exercise, their classification in wards, etc. Of course this, in a large measure, depends upon the individual superintendent. But to give an example: In one of the asylums where the assistant physicians are imbued with the laudable spirit of making as much pathological investigation as possible, the Superintendent caused to be erected a dead-house. Although the Superintendent himself never attended the autopsies, he constructed this building without in the least consulting his assistants as to the arrangements of the building. After the building was finished he devised for the *post-mortem* room an autopsy table after his own original designs. It proved to be a surprise to his assistants! Just here is where

a hospital for the insane will suffer in comparison to a general hospital. In the former we find the "one-man" idea everywhere prevalent; in the general hospital the plan of construction, of diet, etc., represents the consensus of opinion of the medical staff.

This subject was recently discussed by Drs. Dodds, Strahan and Greenlees in a paper before the British Psychological Association, as reported in the *Journal of Mental Science*, January, 1890. These gentlemen arrived at the following conclusions:

"1. That it is in opposition to the best interests of the insane and of mental science that more of our asylums should be enlarged beyond, say, 700 to 800 beds.

"2. That the medical staffs of asylums generally require strengthening by the appointment of junior assistants and clinical clerks.

"3. That the senior Assistant Medical Officer should be given a recognized position as responsible physician under the Superintendent.

"4. That arrangements should be made in all large asylums whereby the senior assistant need not remain a single man unless he choose.

"5. That the salary of the senior assistant should increase with length of service on something like the scale at present in force in the army, instead of remaining forever fixed, as is at present too frequently the case."

The President of this famous Association, Dr. George H. Savage, a man who stands in the very first place as a promoter and student of scientific psychiatry, speaking on this subject, said: "He feared the want of progress was often due to the jealousy of superintendents."

Yours truly,

St. Louis, Mo., PROGRESS.
July 21, 1890.

Abdominal Surgery and Conservatism.

TO THE EDITOR.

Sir: In a recent *résumé* of abdominal surgery, the writer declares: "To a man, these conservative men are without experience." Not content with this, he boldly decides conservatism to be a cloak for the want of experience on the one hand, or the want of conscience on the other.

There are two great extremes to be met in the radical work of the day. The one, where courage, growing reckless, dares all things, despite the fact that human lives are solemn stewardships. The other, where care grows timid and defeats wise ends by fearing to attempt. Between these two—the golden mean—is *true* conservatism. On one hand there is at times ignorant and mischief-making diagnosis, and haste to cover faults with a fallacious name. This is as much to be regretted as the attitude that gives consent to months and years of worse than useless "treatment," and sanctions the process with erroneous terms. The wisdom of sound experience should be the arbiter of expediency wherever practical surgery obtains; and due regard for humanity and its needs should aid in the decision of each individual case.

However great the need for reform in the profession of to-day—however earnest its apostle, surely no one has a right to such sweeping assertion as does the writer referred to who calls those of whom he is speaking a "set of surgical pretenders." So many conscientious minds and skilful hands have been governed by a broad conservatism, in the best sense of the word, that it is a pity to find any one capable of casting a calumny on those to whom the world is many times a debtor.

Yours truly,

F. E. LIPPERT, M. D.

Philadelphia,
July 29, 1890.

NOTES AND COMMENTS.

Senseless Panic over Leprosy.

The *New York Medical Journal*, August 2, 1890, says: From this week's report of contagious diseases in New York it will be seen that a case of anæsthetic leprosy has been reported. The patient is a young man, aged twenty years, a native of Central America, who has been attending school in this country for more than a year. The symptoms of the disease did not appear until after an attack of influenza during the past winter, and at first the true character of the complaint was not recognized, but when a definite diagnosis was made and the case reported to the Board of Health the patient was forcibly removed, by order of the Board, to North Brothers Island.

We must deprecate this action of the

Board, that seems based upon the fear of leprosy that probably most persons entertain as a result of biblical reading. Why should the treatment indicated in Leviticus be followed in this disease, while many of the other sanitary injunctions of the Old Testament are properly ignored? Should our treatment of such cases be traditional or scientific? True, this action of the Board has two precedents in this country; one, the instance in which the Philadelphia Board of Health exercised its authority in forcibly confining two lepers in 1888, and the other the one in which in St. Louis an unfortunate leper was taken from his friends by order of the local Board of Health and confined in a lazaretto until he died. In the latter case a slight effort was made to secure the release of the patient by habeas-corpus proceedings; and the tenor of the popular impression regarding the disease cannot be better illustrated than by the fact that there was a stampede from the court-room, even the wearer of the judicial ermine sharing in the fright, when it was learned that the leper in person had been brought into court. Had a consumptive been brought into the room it is needless to say that no such alarm would have been created; and yet, conceding the most ultra virulence to leprosy and the justifiability of the most extreme views held by lepraphobists, it cannot be held that the disease is as contagious as tuberculosis, or that it causes even a small percentage of as many deaths as the latter.

The sanitary regulation authorizing inspectors of the Marine Hospital Service to exclude leprous immigrants is an excellent one, because such persons will probably become public charges. Nevertheless, even with this regulation, we doubt if an American citizen could either be legally excluded from the country or be confined as a virtual prisoner in a lazaretto, because he had unfortunately acquired leprosy during a residence in certain foreign countries. At a recent meeting, in June last, of the representatives of the State and local Boards of Health, at Nashville, an effort was made to obtain the adoption by that body of regulations requiring the isolation of lepers in the United States. The evidence that supported the theory of the acute contagiousness of leprosy in this country was considered so inconclusive that this association of experts declined to adopt the regulations advocated by one or two radical members.

In Minnesota, South Carolina, Florida, Louisiana and California there are cases of leprosy. In the last-named State the patients are principally Chinese, and, on account of the susceptibility of that race to the mild contagion of the disease, lepers are isolated. But in none of the other States named has any attempt been made to isolate the patients; yet there is no evidence that the disease has increased in any of them during the past century, and there is but a single authentic record of the disease being acquired by association in this country. This latter case was in a Roman Catholic priest attending leprous patients in Charity Hospital, New Orleans; it was supposed that he acquired it by the custom of inunction of the dying. He was an American Father Damien who received no honors in his own country.

That the bacillus lepræ can cause the disease by inoculation is uncertain, for in the case of a condemned criminal inoculated in 1884, in whom the leprous bacilli were found in the cicatrix in 1885, he did not show signs of general infection until 1889. Again, consider for one moment the many years that Father Damien was exposed to the disease before he acquired it. Besides the micro-organism, certain factors of climate, environment, and food seem requisite; possibly, besides, what Jonathan Hutchinson has designated as "some very special kind of poison of rare occurrence taken in connection with food." Certainly climate exercises a potent influence in keeping the disease in abeyance, as has been proved in cases of Englishmen that have acquired leprosy in colonial possessions and have lived in fairly good health on returning to England.

To deprive an individual of his liberty is a very serious matter, and, in view of the fact that contagious diseases of far greater danger to public health than leprosy are treated at the domicile, there seems to be no good reason for such arbitrary, though well intended, action as that taken by the Board of Health. If experience with the West Indians that are the lepers in Florida, the Acadian descendants that constitute the Louisiana lepers, or the Norwegian lepers in Minnesota, justified a belief in a danger to this community in permitting this patient to reside with his family, the case would be different. But to cite the illustration of a primitive people like the Sandwich Islanders, that have been successively decimated by contagious diseases, and in every way shown their inability to resist diseases less

noxious to the white race, or of the unsanitarily situated natives of India, as reasons for our better circumstanced population fearing the spread of a disease that occasionally presents itself among us, is to ignore the therapeutic resources of our profession—for cures of lepers have been reported—and to place as naught the hygienic advantages of civilized communities.

Blood in Phthisis and in Carcinoma.

Dr. Neubert (*St. Petersburger med. Wochenschr.*, 1889, No. 32) reports the results of examinations of the blood of patients suffering from phthisis and from carcinoma. He found the average in a large number of healthy men to be 5,600,000 red corpuscles to the cubic centimeter, with 45 per cent. of mono-nuclear and 55 per cent. of multi-nuclear leucocytes, of which there was 1 to 650 red corpuscles. He also examined the blood in 24 cases of phthisis and 9 of carcinoma (5 carcinoma of the œsophagus, 4 carcinoma of the stomach), and he found the normal amount of hemoglobin to correspond with the figures 105 on the scale of Fleischl. The relation between the number of red corpuscles and the amount of hemoglobin was nearly constant.

In the 24 cases of phthisis, the number of corpuscles was normal in 9, in excess in 3 and more or less diminished in 12. The average of all the cases showed a diminution of the red corpuscles to the extent of 8 per cent. The increase observed in 3 cases was probably to be ascribed to night-sweats and diarrhœa, inducing an increased density of the blood.

The relative amount of hemoglobin was constantly diminished, even in a higher degree than the number of corpuscles, so that the average amount of hemoglobin in a single corpuscle fell to 73 per cent. in women and 85 per cent. in men.

The number of leucocytes to the cubic centimeter showed no noteworthy change. The proportionate number of mono-nuclear leucocytes was less than the number of multi-nuclear leucocytes.

The various sizes of red corpuscles were so changed in relative numbers that the medium sized (with a diameter of 7.5 to 9.2 C.), which normally constitute about 87 per cent. of all, were reduced to 76 per cent. Poikilocytosis was not observed in any case; nor was there any characteristic difference between the changes in the earlier and those in the later stages of the disease.

In the 9 cases of carcinoma both the number of red corpuscles and the amount of hemoglobin were subnormal, and here again the amount of hemoglobin showed the greater reduction, though the disproportion between the number of corpuscles and the amount of hemoglobin failed to reach as high a degree as in phthisis.—*Centralbl. für Chirurgie*, April 19, 1890.

A Hint for the Microscopical Examination of Urine.

The *Pharmaceutical Era*, July 1, 1890, quotes from the *Lancet* the following practical hint in regard to examination of the urine:

When attempting to examine urine under the microscope, for casts, epithelial cells and other organic bodies, a good deal of annoyance and difficulty is sometimes caused by urates, and also, when the specimen is not quite fresh, by fermentation and putrefactive products. In order to obviate this difficulty, and with the further view of preserving the specimen, Dr. M. Wendringer advises that the urine should be mixed with a nearly saturated solution of borax and boracic acid. This dissolves the urates and keeps the urine from fermenting, and at the same time exercises no destructive effects upon the casts and epithelial elements which it is desired to examine. The solution is prepared by mixing twelve parts of powdered borax in one hundred parts of hot water, and then adding a similar quantity of boracic acid, stirring the mixture well. It is filtered while hot. On long standing, a small deposit crystallizes out, but clings to the side of the vessel, so that it does not interfere with the transparency of the liquid. The urine to be examined is put into a conical glass and from a fifth to a third of its bulk of the boracic solution added to and agitated with it. The urine will be found to have become clear in a short time—*i. e.*, if there is no cloudiness due to bacteria; and it will remain unchanged for several days. If it is only wanted to clear the urine and to make it keep for a day or two, the addition of a smaller quantity of the boracic solution is sufficient. If a third of its bulk is added, no fermentation or putrefactive processes take place, even if the glass is left uncov-

ered in warm places. Albumin, too, if it exists, is not coagulated. The organic elements—as epithelial cells, casts, blood corpuscles, etc.—collect so quickly, without undergoing any morphological change, at the bottom of the glass, that the first drop taken up by the pipette usually proves a satisfactory specimen.

Orexin.

The *Therapeutic Gazette*, July 15, 1890, states editorially, that orexin may now, in all probability, be relegated to the obscurity which it seems to deserve. Orexin was described in the MEDICAL AND SURGICAL REPORTER, April 5, 1890, as a valuable stomachic and useful in anorexia. In the REPORTER, July 26, 1890, the experiences of Dr. Glückziegel, in confirmation of the above were referred to. Dr. Glückziegel's conclusions were based upon the results obtained in seventeen cases. The condemnation of the drug by the *Therapeutic Gazette* is based on a paper published by Dr. George Müller in the *Therapeut. Monatshefte*, June, 1890.

He has tested its use in five different cases, in all of which orexin proved to be absolutely inert. "Of course," says the *Therapeutic Gazette*, "these five cases in themselves would not be sufficient to detract from the reputation of an established remedy, but when they are taken in conjunction with the number of other cases which have been reported, it seems that further studies with this substance are uncalled for."

We, however, do not think that a drug which has given such excellent results in the hands of such investigators as Professor Penzoldt, Dr. Glückziegel and others can be so summarily dismissed, and trust that its further investigation will serve to substantiate its usefulness.

Calomel Plaster for Syphilis.

In order to obviate the many inconveniences attending the administration of mercury in the majority of forms, Dr. Quinquand, in the *Médecine Moderne*, and quoted in the *Journal des Maladies Cutanées*, May, 1890, gives the following formula.

℞	Diachylon plaster	30 parts
	Calomel	10 "
	Castor oil	3 "

The region of the spleen is chosen for the application of the plaster, and before its application the skin should be washed with soap and water. The size of the plaster used should be about four inches square. It should be applied for eight days, then discontinued for eight days, and then reapplied for the same length of time, and so on.

Dr. Quinquand has found, by examination of the urine, that the mercury readily penetrates the skin and that it is probably changed to sublimate by the action of the chloride of sodium in the cutaneous secretions. The penetration of the drug into the system does not, however, take place until about the fourth or fifth day after the application of the plaster; the absorption of the drug is then rapid and its presence may be detected for some weeks after the discontinuance of the treatment.

If employed as described above, no salivation will follow the treatment. In order to obtain salivation the surface covered by the plaster must be enlarged to double of that given above and the application should be a more prolonged one. The therapeutic effects obtained by this method of administering mercury are as satisfactory as those obtained by any other method.

Disinfectol.

According to the *Lancet*, June 7, an oily blackish liquid, containing resinous soaps and soda, compounds of phenols dissolved in hydrocarbons, which has been introduced by Lœwenstein into commerce under the name of disinfectol, has recently been examined by Dr. Beselin as to its capacity for destroying bacteria. It mixes readily with water, forming an emulsion. It was found that a five per cent. emulsion destroyed the bacteria in an equal volume of typhoid stools in eighteen hours, while a twenty per cent. emulsion completely disinfected double its volume of similar stools in a quarter of an hour. Experiments were then made for the purpose of determining the disinfecting power of disinfectol as compared with that of other substances. A five per cent. emulsion was found to be as active as a twelve per cent. emulsion of creolin, a five per cent. solution of carbolic acid, or a corrosive sublimate solution of the strength of two in a thousand. A ten per cent. emulsion of disinfectol was as active as a fifty per cent. solution of sulphuric acid. This new antiseptic has been employed in surgical practice with satisfactory results by Professor Gies

and Dr. Roth. It is not caustic. Dr. Beselin has not gone into the question of possible toxic properties.

Cough Lozenge.

The *National Druggist* gives the following formula, which is said to be that of one of the best and oldest proprietary cough lozenges on the market.

℞	Morphia acetate	1 part
	Ipecac	3 parts
	Licorice, in powder	120 parts
	Gum arabic, in powder	120 parts
	Sugar, powdered	240 parts
	Oil of lemon	5 parts
	Fresh lemon juice	75 parts

Rub the powder together and add the oil of lemon and rub up again. Dissolve the morphine in the lemon juice, add to the mass, and thoroughly incorporate. Divide into lozenges weighing about 11 grains while still moist, and let dry thoroughly before putting into boxes.

While few practitioners are in the habit of prescribing cough lozenges, yet they are preferred by many patients on account of their portability. In such cases the above formula will be found efficient, containing, as it does, both sedative and expectorant properties, and having a pleasant taste.

Testicle Therapy for Leprosy.

At a meeting of the *Société de Biologie* of Paris, June 28, Dr. Brown-Séquard spoke of two cases of leprosy in which injections into the rectum of testicle juice had been followed by diminution of the ulcers, disappearance of paralysis, anæsthesia and œdema, return of sleep and renewal of the hair. He offered an explanation for these curious facts and said that ovarian juice is like that of the testicle, while being somewhat less efficient and less irritating.

Active Principle of Jequirity.

A Dutch observer, Dr. Nicolai, has been engaged in a series of observations directed to the elucidation of the question whether the irritant action of the seeds of the Abrus precatorius, or jequirity, is due to a non-organized ferment or to bacteria. He found that while a pure culture from the seeds produced no irritation of the conjunctiva, a chemical preparation in which there were no bacteria set up the inflammation characteristic of jequirity. He concludes that the active body is an amorphous ferment or "entyme," which can be isolated in the form of a white powder. This substance caused conjunctivitis in four or five hours. Its activity was destroyed by a temperature of 180° C. when dry, but a three per cent. solution became inactive after being heated to 78° C. It was also rendered inactive by borax and by prolonged treatment with absolute alcohol. Chloroform, ether, and corrosive sublimate did not affect it. No resemblance could be traced between it and pepsin rennet or diastase. It appeared to have strong toxic properties, for when injected into the venous circulation in rabbits it rapidly proved fatal, causing convulsions and paralysis of the heart.—*Lancet*, June 7, 1890.

Surgical Treatment of Umbilical Hernia.

The *Medical Press*, July 2, 1890, says: Strangulation of an umbilical hernia is tolerably rare, and was formerly looked upon as almost inevitably fatal. Even though such hernia do not commonly get "nipped," they give rise to a great deal of inconvenience, and are very liable to cause recurring intestinal obstruction. Until recently, however, they were not considered favorable for curative operations, but the audacity of the aseptic surgeon knows no such restrictions, and a sufficient number of successful cases are now on record to show that, under such circumstances, the radical operation is not only justifiable, but is, in reality, associated with a minimum of risk. In the hands of French surgeons, not perhaps the most successful in this department, of thirty-three operations for strangulated umbilical hernia, only six proved fatal. In future, therefore, surgeons need no longer hesitate to advise surgical interference, and this even in cases not essentially urgent.

The Cholera in Egypt.

On August 4 the *Pesther Lloyds* newspaper printed sensational dispatches from Mecca to the effect that the place was then visited by ten thousand Mohammedans, who are nearly all struck by cholera. It stated that one hundred and fifty-five of the pilgrims had died one day the week before, and that there was reason to fear that the

cholera might be brought to Europe by the Bosnian and Bulgarian pilgrims.

The special correspondent of the *Pesther Lloyd* said that a more sickening condition of affairs could not exist, and he urged that the most stringent measures should be adopted for the protection of Europe.

On August 5 it was reported that the Egyptian government had adopted the severest measures by quarantine and surveillance to prevent Jeddah pilgrims from bringing cholera into Europe; and a commission, consisting of the leading physicians had been appointed by the Government to consider means to prevent the introduction of cholera into Egypt.

August 7 one hundred and seventy-five deaths from cholera were reported in Mecca the day before, and that the disease was raging at Jeddah, the number of deaths averaging one hundred daily.

On August 8, it was said that the cholera showed no signs of abatement at Jeddah. There were one hundred and seventy cases of the worst type of the disease in that city. The authorities had forbidden pilgrims who have been to Mecca to embark at Jeddah. Troops had been sent to guard all points on the Red Sea where persons from Arabia are likely to land. Cruisers were sent to assist in maintaining the cordon. The mortality of Jeddah continued above one hundred daily.

Case of Hydrophobia.

The Philadelphia newspapers of August 2 published an account of the death of a little boy in this city, the day before, of what was said to be hydrophobia. About four months before this the child was bitten on the cheek by a dog about which there are conflicting accounts. The wound was cauterized by a near druggist, but never healed. The physicians in attendance are said to have been convinced that the case was one of hydrophobia; but, on investigation, the Coroner is said to have been convinced that it was not. The facts of the case will be awaited from the physicians, one of whom is said to have promised to report the case to a medical society.

Insane Man Scalded to Death.

On August 7, a man forty-one years old died in the Insane Department of the Philadelphia Hospital of scalds received the day before. He had been left in the bath-room by an attendant. The water had all been drawn off of the tub, but while the attendant was gone the man got into the tub and put the plug in the waste pipe, which, as there happened to be a leakage in the hot-water pipe, soon allowed several inches of water to collect in the bottom of the tub in which the insane man was found sitting a few minutes later. The Coroner said that all care and precaution had been observed by the officers of the institution, and that the case was a purely unavoidable accident, as the leakage was such that it would not have been discovered in any other way. The jury took the same view of the matter and a verdict was so rendered.

NEWS.

—On August 7 a death from cholera was reported in Madrid.

—Caporali, who assaulted Premier Crispi in Naples some time ago, has been acquitted on the ground of insanity.

—The French Senate, on August 4, voted 100,000 francs for the establishment of frontier posts to prevent the entry of cholera into France.

—Dr. H. B. Baker, Secretary of the Michigan State Board of Health, has had the honorary degree of A. M. conferred upon him by the State University.

—There has been much ill-health in Rome, due to an outbreak of Roman fever. There were over three hundred deaths from this cause the last week in July, and the epidemic was on the increase.

—Dr. Koch read before the Medical Congress in Berlin a paper in which he is said to have declared that he had discovered a way of killing the tuberculosis bacillus, and of curing tuberculosis disease.

—The International Cremation Congress at Berlin has appointed a committee, consisting of members from the different countries represented at the Congress, for the purpose of furthering the movement for the cremation of the dead.

—A resolution was adopted August 6, by the Board of Health of Philadelphia, directing the Port Physician to make a thorough sanitary inspection of the North Philadelphia drove-yard and the Philadelphia stock-yards

and abattoir, and report their condition to the Board.

—An epidemic was reported at Preston, Iowa, on August 7, which is said to be of the nature of cholera. Later it proved to be a malignant type of dysentery. Eighteen deaths have occurred in as many days, but the epidemic was said, on August 9, to be abating.

—On July 24, a son of Dr. V. M. Marcy, one of the oldest physicians of Cape May, N. J., gave the Mayor, J. H. Edmunds, a thrashing with a rawhide for publishing a false and derogatory article about Dr. Marcy in a newspaper of which the Mayor was manager.

—It is reported that J. M. Hirsh, a chemist of Chicago, in an interview, August 7, claims that he has discovered a process by which he can extract aluminum from common clay, at a cost of fifteen cents or less per pound. He proposes to begin work within a few weeks, turning out 300 pounds daily from the start.

—Dr. Gilbert A. Lathrop, of Montrose, Pa., was killed by being thrown from a carriage, August 6. He was driving near Heart Lake with his *fiancée*, when his horses ran away and he and the young lady were dashed out of the carriage, which was overturned. The young lady, it is expected, will recover.

—The Kensington Hospital for Women, Philadelphia, was charged by a man who lives in an adjoining house, with being conducted in such a manner as to make it a nuisance, prejudicial to the health of people residing in the vicinity thereof. The Hospital needs a new building, as stated in the REPORTER August 2, page 150.

—Dr. Henry G. McGonegal, a graduate of the University of the City of New York, in 1852, Augustus D. Harrison and Fanny D. Shaw, who were recently indicted in New York for manslaughter in causing the death by malpractice of Annie Goodwin, were arraigned August 7, when they pleaded not guilty and were remanded for trial.

—Dr. William Lomax, of Mattoon, Indiana, a graduate of the University of the City of New York, in 1850, has given his entire estate, amounting to over $100,000, to the Indiana Medical College, of Indianapolis, the only condition being the payment of a small annuity to Dr. Lomax and his wife during their lives, and the reservation of their home to them.

—The physicians of Bethlehem, Pa., report that the epidemic, mentioned in the REPORTER, August 2, is on the decline. The authorities have decided to have the tank at the town's water works drained and cleansed. The tank when completed last fall was painted with a coat of metallic paint on the inside, and many think this polluted the water. Steps have also been taken to have the water analyzed.

—A warrant was issued, on August 1, on the application of Coroner Bickford, of Lockport, for the arrest of Drs. Byron D. Baker and W. D. McGill, of Buffalo, on a charge of manslaughter, in performing a criminal operation on Hattie King, of Lockport, of which she died. Dr. Baker gave bail in the sum of $1,000. Dr. McGill has not yet been found. Both doctors are already under bonds on a similar charge in the Minnie Ellis case.

—William Kemmler, convicted of murder, was executed August 6, in the State Prison at Auburn, New York, under the law by the use of electricity. After the application of electricity had continued about 17 seconds, he was said to be dead, and the current was stopped. Signs of respiration appeared, however, and the current was again applied, and in about 13 minutes from the first stroke he was again declared dead. Death was then a certainty. The flesh upon the dead man's back was burned, and also a spot on the top of his head, where the electrodes had been placed. The autopsy was made three hours after death. All the physicians agreed that Kemmler must have lost consciousness at the first shock.

OBITUARY.

M. K. KNORR, M. D.

Dr. M. K. Knorr, a well-known physician of Philadelphia, died August 7, at Atlantic City, of disease of the liver. He was about fifty-four years old and was born in Philadelphia, where his father, John K. Knorr, was a prominent physician. He was graduated from Jefferson Medical College in 1860, and began the practice of medicine with his father. At the outbreak of the rebellion Dr. Knorr entered the army as a surgeon, and served throughout the war.

At its conclusion he resumed the practice of his profession in Philadelphia. Owing to poor health within the past year or two Dr. Knorr was forced to give up active practice.

MEDICAL AND SURGICAL REPORTER

No. 1747. PHILADELPHIA, AUGUST 23, 1890. Vol. LXIII.—No. 8.

Clinical Lecture.

GASTRO-INTESTINAL CATARRH.—ANEMIA.—CHRONIC BRONCHIAL CATARRH.

BY JOHN AULDE, M. D.

REPORTED BY WILLIAM B. STEWART, M. D.

Gastro-Intestinal Catarrh.

Gentlemen: The first patient to whom I desire to call your attention to-day is this young woman, who is apparently in the enjoyment of fairly good health. She is now nineteen years of age, but for the past two years has suffered from more or less pain after eating, and during that time she has not eaten a meal without vomiting shortly after taking food. An important circumstance in this connection should be noted, namely, that no blood has appeared with the vomited matter: a point which would be against the diagnosis of cancer. This item is mentioned, owing to the fact that she had an aunt die from cancer quite a number of years ago, and that the impression obtains with herself and relatives that she also is destined to die from this disease.

Thus far, however, there has been no marked emaciation, although the pain has been constant night and day for the past six months. She complains of feeling tired, the heart's action is feeble, the first sound being indistinct; the volume of the pulse is varied; there is a feeling of want of breath when going up stairs; and the menses are scanty. All these symptoms point to anemia; but it is not what might be called a case of chlorosis, the peculiar greenish hue of that disorder being absent. The circumstances here point to an imperfect performance of the normal functions of the stomach, due to a lack of nutritious blood, and this will develop a catarrhal condition of the pylorus and cause vomiting. The liver is also dormant, and a similar condition exists also in the intestinal canal, arresting the secretions. Primary assimilation is here affected, and, as a consequence, secondary assimilation is faulty. The pain or neuralgia is simply the cry of an impoverished nerve for pure blood.

Iron and arsenic, in suitable cases, will cure anemia, but would it be advisable to administer these remedies in this case? The patient's tongue is coated; and my impression is that the exhibition of iron would be adding insult to injury. The system is in that condition which will be benefited by oiling, and attention to the condition of the liver will be in the nature of what might be termed radical treatment. A few days ago this patient appeared at the clinic and a pill composed of the following ingredients was ordered:

℞ Strychninæ sulphatis . . . . . gr. $\frac{1}{60}$
Pulv. ipecac. . . . . gr. $\frac{1}{30}$
Ext. gentianæ . . . . . gr. i
Pulv. pip. nig. . . . . gr. ss

M. et ft. pil. No. 1. Sig. Take one pill after meals.

The result of this treatment has been that the pain has appeared but once since she began taking the medicine, and the nausea and vomiting have disappeared entirely; and everything indicates that the primary assimilation has been markedly improved, so that the idea of cancer cannot longer be entertained. The patient complains, however, that she is unable to sleep; and this restlessness is a factor which should not be overlooked. You are aware that hypnotics are remedies which will produce sleep; bromides, chloral, chloralamid, sulphonal and other drugs can be used for this purpose; but they are of doubtful value in this case, for the reason that the insomnia is most

[1] Delivered at the Medico-Chirurgical College, of Philadelphia.

likely due to incomplete stomach digestion, in consequence of which a part of the food passes the pyloric orifice undigested, and acts as an irritant to the terminal filaments of the sensory nerve, supplying the intestine. By introducing into the stomach along with the food a combination which includes pepsin and hydrochloric acid—the normal acid of the gastric juice—we shall have an ideal digestive ferment. Hydrochloric acid alone has been tried, but without success, because of the poverty of the blood, which in these cases seems to lose the property of producing the peptic ferment. The following prescription will therefore be ordered, the patient being instructed to begin with this medicine in the course of a day or two, as soon as the pills previously ordered have all been taken.

℞ Tr. nucis vomicæ
Acidi hydrochlorici dil. . . . . āā ♏ v
Pepsin. puri . . . . . gr. i
Glycerini
Aquæ . . āā partibus equalibus, q. s. ad ƒ℥i
M. Sig. Take in a little water half an hour after meals.

(NOTE.—A week later this patient reported that she had slept well; there were no symptoms of vomiting or pain and she looked much better in every way. At the end of another week, she had so far recovered that she was placed upon a combination of reduced iron in combination with pure pepsin, to be given dry in the form of a capsule, the object being to prevent a return of the anemia and at the same time guard against any derangement of the digestion.)

Anemia.

The next patient is this young woman, seventeen years old, a mill-worker. She complains of several troubles, but is much better now than when she first came here for treatment. She had headache and dizziness and was suffering from that peculiar form of headache which has been called Charcot's helmet—a pain which sometimes affects the occipital region, at other times the frontal region, but sometimes it extends from front to back, or it may affect but one portion at a time. Occasionally this pain is so severe that she cannot see. A fact to be noted in this connection is, that she suffers excruciating pain at the menstrual periods, and until lately the flow has been scanty. Under treatment, however, this condition has greatly improved and the flow is now nearly normal; but she still suffers more or less with the headache.

At first, she was given two grains of quinine sulphate every four hours; and this has proven a valuable remedy. Quinine is a stimulant, a vascular tonic, an anti-periodic and hematinic; but you must be guarded in its use on account of the effect upon the heart. At present she is taking a tonic mixture containing nux vomica and compound tincture of cinchona. I should call your attention to the fact that she suffers from some slight swelling of the feet towards night; and an examination of the heart shows that we have to deal with a feeble first sound. In such cases we give nux vomica for its effect upon the cardiac muscle and for its tonic effect upon the muscular system in general. There is a suspicion of pulmonary trouble; but this is doubtless due to the feeble condition of the cardiac action, dependent upon the general anemic condition. The following treatment will be ordered:

℞ Ext. nucis vomicæ . . . . . gr. ¼
Ferri redacti
Pepsini puri . . . . . āā gr. i
M. et ft. No. 1. Sig. Take after each meal.

In addition to the powder, she should have an abundance of suitable nutritious food and plenty of fresh air.

Chronic Bronchial Catarrh.

The next patient is a young woman eighteen years old, English by birth. She tells us that she took cold three weeks ago, and that this was followed by cough and more or less yellowish-colored sputa. There is no appetite; the bowels are constipated; and the percussion note over the lung structure is dull both anteriorly and posteriorly; the tongue is flabby and tremulous. Here, evidently, we have another of these peculiar anemic patients; her face lacks color; the ears are pale and bloodless. Her occupation is that of a waitress; she coughs at night, and has headache and pain in the back and limbs and says she feels tired all the time. She can scarcely go up stairs on account of the pain in her left side and back—a condition which may be due to heart trouble or to engorgement of the spleen, which you know is regarded by some as a subsidiary heart—a sort of reservoir. The action of the heart is greatly increased in frequency; but the contractions are fee-

ble, and undoubtedly the greatest trouble lies in the congestion of the bronchial tubes. It is imperative that she should have a medicine to counteract the effect of the cold, and she will therefore be instructed to take an ordinary cough-mixture. Later on, she will have tonic treatment.

℞ Amonii chloridi . . . . . ℈viii
Tr. opii deodoratæ . . . . . f℥i
Mist. glycyrrhizæ comp. . . . . f℥iiss
Syr pruni. Virg. . . . . q. s. ad f℥iv

M. Sig. Take two teaspoonfuls in a little water every three or four hours.

As soon as the cough has been subdued, and the tendency of the inflammatory action to extend has been checked, she will be placed upon small doses of quinine sulphate in combination with calcium sulphide.

COMMUNICATIONS.

BRAIN SURGERY, WITH REPORT OF ELEVEN CASES.[1]

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When Dr. John B. Roberts, of Philadelphia, read his exhaustive and interesting paper upon the Surgery of the Human Brain, before the American Surgical Association, at Washington, D. C., April 21, 1885, little had been said and done in this country in reference to active operative attacks upon the brain, although earnest pleas had been previously offered for more active work in this direction by the late Dr. Moses Gunn, Dr. W. T. Briggs, and others. Since that time brain surgery has advanced almost to a position co-equal with its twin sister, abdominal surgery. Although bold and successful attacks upon the brain have been made by Weir, Keen, Pilcher, Nancrede, and others, there is yet considerable room for improvement in the diagnosis and surgical treatment of diseases within the domain of the cranium, and any mite of experience offered in this direction, whether confirmatory or adverse to work already done, may be considered additional lessons to the subject. This is my apology for presenting a report of the following cases, together with a brief retrospect of the work since the advent of Dr. Roberts' valuable paper.

Case 1. Compound Fracture of Skull. Trephined. Recovery. C. B., aged 4½ years, while playing, fell from the steps and struck his head upon a projecting nail in the sidewalk. I saw him within two hours after the accident, in the evening of July 18, 1888. It was evident that the head of the nail had entered the skull to the left of the saggital suture in a direct line above the left ear. Aside from considerable oozing of blood there were no other symptoms. Exploration revealed the fact that the outer table, with quite a piece of the inner table, had been driven through the dura mater into the brain, and in order to elevate the fragments I found it necessary to remove, with a half-inch trephine, a portion of a disc of bone. I succeeded by this means in elevating the depressed inner table and in removing several small fragments of bone. As the reimplantation of buttons of bone removed had been recently spoken of with favor, I concluded to reimplant the portion removed, which was accordingly done, in the meantime having kept it warm in antiseptic fluid. The wound was drained with several strands of catgut and the head encapsulated with several thicknesses of bichloride gauze. July 19, through the carelessness of the mother, the dressings had become removed during the night, and the family doctor not having antiseptic dressings at hand, dressed it as best he could. I saw the little fellow July 20, when there were evidences of septic infection. I, however, thoroughly irrigated the wound with 1 to 500 bichloride solution, a strength of the mecuric solution I have never found injurious, either to the dura mater or brain tissue. After leaving the proper materials and emphatic instructions as to the after-dressing, if necessary, I did not see him again until he was brought to my office, July 29, when I found the implanted bone necrosed, which I removed. I saw him a few times afterwards, the wound granulating nicely. The boy's people were indifferent and dissolute, and I was unable to keep the case under further observation, although I was afterwards informed he made a good recovery. In all probability, had the antisepsis been kept up, the implanted bone would have been restored. Yet I do not see the advisability of reimplantation of buttons of bone removed,

[1] Read before Michigan State Medical Society, at Grand Rapids, Michigan, June 20, 1890.

the reason for which I will speak of further on.

Case 2. Trephining for Fracture of base of Skull. Death. J. J., aged 33, December 23, 1888, while driving a fire engine, was thrown from it, striking upon his head, and was taken to St. Mary's Hospital. The Fire Department's surgeon, Dr. Wm. Brodie, attended him, and the hospital records state that he was brought to the hospital unconscious, that there was bleeding from the mouth and left ear, with contusion above it. He had repeated convulsions during the night with Cheyne-Stokes' respiration. The next day in his delirium he attempted to get out of bed and had to be restrained by force, and he remained in this condition until December 26, when I saw him at the invitation of Dr. Brodie. At this time he was in a semi-stupor, with restlessness when aroused; pupils responded but feebly to light, and evidently could not speak or hear; respirations about 15; pulse 80, and temperature 102½°. There was still considerable oozing from the ear. I advised, although in a critical condition, immediate trephining, which I did by removing two discs 1½ centimeters above and posteriorly to the left external meatus. Following the removal of the discs the dura mater bulged out, and on puncturing it the fluid spurted out for a distance of several feet. The dura mater was then freely opened and quite a quantity of broken-down coagula removed, a drainage-tube being introduced and the most rigid antiseptic precautions observed, yet it was apparent that septic infection had begun through the wound in the ear. The general symptoms were markedly improved for a few hours, but he soon grew worse and died on the morning of December 28. Unfortunately we were unable to obtain a *post-mortem.*

Case 3. Trephining for Intra Cranial Hemorrhage. Recovery. J. L., aged 24, sailor, of intemperate habits, entered Harper Hospital December 24, 1888, with the history of having been picked up by the police as a "common drunk." After remaining at the station for two days and not recovering from his drunk, he was brought to the hospital. His condition at the time of admittance was one of semi-coma. Left pupil contracted, while the right dilated on exposure to light. There was complete paralysis of left arm and leg without spasm, and retention of urine, which had to be relieved by the catheter every twelve hours. Could be roused with effort, answering questions mutteringly and incoherently. The only evidence of external lesion was a slight scalp wound over the right parietal eminence. Respiration and pulse slow, with a slight subnormal temperature. He remained in this condition until December 29, when I first saw him at the solicitation of his friends. The condition of affairs in this case was only to be arrived at by an analysis of the objective symptoms. And this must be true in making out a diagnosis of a brain lesion in a large majority of cases. The external lesion, in itself so insignificant, was of no value practically. We undoubtedly had to deal with compression of the brain; and, from the paralysis of the arm and leg, it was reasonable to conclude that the seat of lesion was over the fissure of Rolando, and presumably a hemorrhagic coagulum. With this view of the case I decided to trephine, which was accordingly done December 30, first directing that the entire scalp be shaved, washed and covered with a cap of bichloride gauze.

Before operating, I mapped out on the scalp, with an aniline pencil, the supposed site of the fissure of Rolando (see Fig. 1),

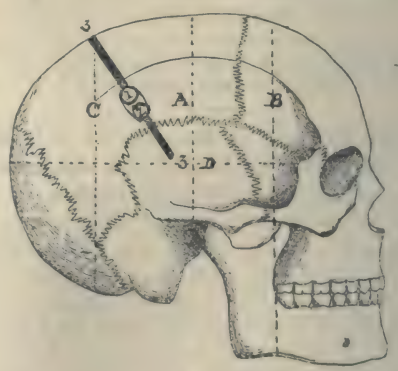

Fig. 1.

first drawing the auriculo-bregmatic line, and at right angles with this the fronto-lambdoidal line, then measuring posteriorly two inches, another line was drawn parallel with the auriculo-bregmatic line. The space would cover the supposed lesion. Using chloroform as our anæsthetic, I made a free curved incision with the convexity directed towards the vertex posteriorly, and after securing the bleeding vessels the periosteum was similarly divided and reflected back with the scalp. Using an inch trephine, a button of bone was removed, revealing a large coagulum. After enlarging the opening in the skull with a rongeur, fully five ounces of

firm, coagulated blood was removed from between the skull and dura mater. The periosteum and scalp were coapted (each separately) with interrupted catgut, leaving an opening at the lowest point for the introduction of a ⅜-inch drainage-tube, and the bichloride dressing applied, just as previous to the operation. The temperature was 97½° and the pulse 40.

December 31. Temperature 99° and pulse 90. Dressings were removed and re-applied. There is perfect but feeble movement of the leg and limited of the arm. Catheterized twice since operation. He informs us that he preceded the holidays two or three days by drinking heavily, and had no knowledge of his whereabouts until to-day.

January 4, 1889. Has done well up to to-day, when the temperature rose to 101°. Dressings removed; also catgut sutures, and the wound thoroughly irrigated with 1 to 500 bichloride. The catgut sutures, in my opinion, were the cause of the rise of temperature.

January 5. The temperature and pulse are normal. Has full control of the movements of the arm and leg, with complete possession of mental faculties, and continued so until his discharge from the hospital, February 16, which he inaugurated with a drunken debauch, but it did not seem to produce any ill-effects. I have heard nothing of him since.

Case 4. Gunshot Wound of Brain. Operation. Recovery. N. B., aged 30, was brought to the hospital at 11 P. M., March 11, having about an hour previous shot himself (having first tried to kill his sweetheart) with a 32-caliber pistol, bullet entering the skull posteriorly to right parietal eminence and lodging partially through the dura mater, driving before it portions of both tables of the skull into the substance of the brain a distance of nearly one-half of an inch. The wound was dressed by the house surgeon, and I did not see him until next morning, when I trephined and removed the bullet, with several small fragments of bone. A rubber drainage-tube was introduced through the dura mater. The temperature at the time of operation was 97° and pulse 50. The dressing, on account of the oozing, was removed and re-applied the next day. The temperature rose to 100½° on the fourth day following the operation, but immediately after re-dressing dropped to subnormal, 97°, with pulse ranging from 40 to 50, and remained so until March 25, when it became normal, until his discharge from the hospital, March 30. The wound completely healed. He stood trial afterwards for the attempt to kill the young lady, to whom he was engaged, and on the plea of insanity and stupidity of the jury, was discharged.

Case 5. Fracture of Base and Vault of Skull. Trephined. Recovery. William P., common sailor, aged 50, April 17, while intoxicated, fell a distance of eighteen feet, striking upon his head and shoulders. He was immediately brought to the hospital, when examination revealed contused, lacerated wound of right ear, also ragged wound of scalp an inch and a half in length, in a direct line two inches above the right external meatus. I was unable to detect any fracture of the vault, but had reason to believe that the base was fractured through the petrous portion of the temporal bone, from the fact that there was considerable discharge of bloody serum from the external ear. As no brain symptoms were present, neither could I detect depression of the skull, I did not deem it wise to resort to operative procedure. The parts were shaved, wounds sewed up, ear washed out and liberal antiseptic dressings applied.

April 18. Temperature 98°, pulse 60. Sleeps most of the time and it is quite an effort to arouse him. During the night had a severe convulsion, with spasm of left arm and leg.

April 19. Temperature 97°, pulse 40. Deaf in right ear. Answers questions incoherently, and is gradually going into a stupor, with partial paralysis of left arm. Recognizing the fact that he was suffering from compression, I had him brought into the operating room and trephined, removing an inch button of bone two centimeters directly above the ear, when I discovered a fracture extending down to ear and directly upwards nearly to the vertex, and to better facilitate the field of operation, I removed two other buttons, one below and another directly above the one already removed. It was evident there was a bloody effusion beneath the dura mater, which I incised and removed a considerable quantity, probably an ounce, of coagulated blood with serum. The usual drainage-tube and dressings were applied.

April 21. The dressings were removed and re-applied. Temperature 99°, pulse 60.

April 23. Temperature rose to 101°,

when the dressings were removed and the wound irrigated with a 1 to 500 solution of mercuric bichloride.

April 25. Temperature 99½°, pulse 80. The dressings were generally removed every second day, on account of the serous oozing.

May 3. All dressings were removed, as all the symptoms had disappeared, except paralysis of right side of face.

May 16. He was discharged from the hospital, well, except deafness in right ear and paralysis of right side of face.

Case 6. Trephining for supposed ancient intra-cranial hemorrhagic coagulum—without benefit. S. W., aged 38, entered Harper Hospital March 26, 1889, for the treatment of hemiplegia, and came under the care of Dr. Emerson, the neurologist of the hospital. His history is as follows: Is a painter by trade; never had syphilis. About a year ago he suddenly became hemiplegic, right side, with loss of consciousness for ten days. He recovered consciousness but the hemiplegia remains with little improvement. General health good. Motor paralysis is almost complete in leg but less so in the arm, there is also some hesitancy in speech. No difficulty with the flow of urine after two or three weeks following the attack. Constipation is present to a certain extent. The diagnosis was cortical lesion along the fissure of Rolando, presumably an ancient blood clot, and I accordingly trephined along its course removing three discs of bone an inch in diameter, incised the dura mater and explored in all directions with a probe without detecting any thickening or induration either of the dura mater or brain. The discs were reimplanted and he made an uninterrupted recovery from the operation, but no improvement of either the aphasia or paralysis of leg or arm. The bone implantation was firm when he left the hospital May 28, twenty-one days following the operation. The diagnosis was evidently incorrect; the coagulum (of which I have no doubt) involved the fibres from the cortex near the internal capsule.

Case 7. Trephining for Epilepsy. No improvement. Annie T., aged 20, entered Harper Hospital May 16, 1889. Dr. J. E. Emerson, who had seen the case previously, advised an operation as a possible means of relief. Her history is as follows: At her birth there was entire absence of bone formation of upper portion of skull, having the appearance of a granulating surface. Her health was good until six years of age, when she had her first epileptiform seizure. Since that time she has grown worse, until now she presents marked evidence of insanity. The top of the head presents a space of cicatricial tissue measuring five inches in length and four inches transversely. To the touch there is a feel of an irregular bony deposit beneath the cicatrix, and, as it approaches from each side, the bone formation is very thin and readily depressed. She had been treated by the usual remedies for epilepsy without benefit, her friends were solicitous for her, and, at the suggestion of Dr. J. E. Emerson, she was referred to me; and as the seizures were right-sided it was decided to remove the bony deposit on the left side, which I did with the trephine and rongeur to the extent of 2½ by 4 inches, the usual antiseptic precautions being taken. She made a good recovery from the operation, temperature never rising above 100°; nor did she have a convulsion until the 28th of May, twelve days following the operation, although previously she had them almost daily, and often several times a day. She left the hospital June 15 and some months afterwards was committed to the asylum, and is now an inmate of that institution. My regret is that I did not remove the entire bone formation beneath the whole of the cicatrix, together with the thickened dura mater. Yet there is considerable question whether any benefit would have accrued from it.

Case 8. Trephining and Tapping for Effusion of the Lateral Ventricles. Death. E. T., aged 49. I was called to see him at Mt. Clemens, he having come there for the purpose of taking the baths. It was noticed by the hotel attendants that he had kept by himself for the past week, rarely spoke to any one and scarcely ate anything. His friends were notified of his condition and at their request I saw him. His temperature was 96½°, pulse 70, respiration 14. Could not obtain the least information from him. Would give a vacant smile when asked a question and look off in an opposite direction. The attendants informed me that he had had no action of the bowels for over a week. It was quite evident he was suffering from intra-cranial pressure of some character. In order that he might be under my immediate care, I had him brought to Detroit and placed in Harper Hospital. I ordered half-ounce doses of sulphate of magnesia every three hours until an action of the bowels took place, also full doses of

sulphonal, as he had slept but little for several nights. May 27, temperature 97°, pulse 60, respiration 15. No action of bowels—ordered enema of glycerine and drop doses of ol. tiglii, also thirty grains iod. potass. three times a day, with the view that possibly the compression was due to syphilitic gumma, although I had not been able, from careful examinations and such previous history as I could get from his brother and friends, to learn that he had ever had syphilis. May 28 we succeeded in getting, by the aid of faradization over the abdomen, a full and free evacuation of the bowels. His temperature rose to 101½° in the afternoon, but again subsided to subnormal before midnight; continued the iodide, increasing dose to forty grains. Dr. Emerson, who had observed the case with me, was inclined to the opinion that the condition was one of effusion of the ventricles.

During May 29 and 30 his condition gradually grew worse, and, with the consent of his friends, I decided to trephine and tap the ventricle after the manner proposed by Dr. W. W. Keen, of Philadelphia. As to the three routes to the ventricles proposed by him, I accepted the third.[1] Trephine 1¼ inches behind the meatus and 1¼ inches above Reid's base line; puncture towards a point 2½ inches directly above the opposite meatus. The puncture will traverse the second temporo-sphenoidal convolution and enter the normal lateral ventricle at the beginning, or in the course of the descending cornu at a depth of about 2 or 2¼ inches from the surface. After removing the disc I used a large-sized hypodermic needle three inches in length, and succeeded in withdrawing, at a depth of 2¼ inches, two drachms of fluid in the barrel of the syringe; but could get no more, owing to the needle becoming obstructed with brain tissue. I then introduced along the needle a grooved director, and finally a quarter-inch drainage-tube, through which flowed considerable serous fluid. The operation was made May 31, at 4 P. M., and for an hour or two his condition seemed to improve, but afterwards gradually became comatose and he died at 11 P. M. Unfortunately, I was denied a *post-mortem*, and did not ascertain the results of the operation in reference to drainage of the ventricles. I am of the opinion that my patient would have died. Yet I think I expedited his death by some hours by the operative procedure, as the latter symptoms pointed strongly to compression from hemorrhage, an accident that must necessarily occur at times, even when the greatest care is exercised in evading the deep structures of the brain; and when a deep blood-vessel is cut or lacerated, it is beyond our control.

Case 9. Tumor of the Brain. Operation. Death. This case came to me August 18, 1889, and I invited Dr. D. Inglis, Professor of Mental and Nervous Diseases in the Detroit College of Medicine, to examine him with me, who kindly did so, and made the following report:

"H. F., aged fourteen years, was brought to Detroit to consult Dr. Walker, with the full realization upon the part of the mother and the mother's trusted advisers, that without further and more radical interference the case was beyond the possibility of hope, and with an equally clear understanding that if an operation were done, it would be purely tentative.

"The history of the lad was, that, coming of excellent parentage, free from any neurotic heredity, he was an active and well developed boy. In February, 1888, while coasting, he was thrown against a tree; for a short time lay stunned, but upon recovering consciousness he rose to his feet. He was at once so dizzy that he was obliged to cling to a support, vomited freely, and shortly after walked home. He then seemed well, and for some days resumed his usual way of life, playing as usual. Some three weeks after the injury he was supposed to have the mumps, although no physician was called. Both before and after the 'mumps' he complained that on stooping he felt a dizzy feeling in his head, 'as if his brain were loose.' After the 'mumps' he was sent to his physician, who sent him home with the statement that he should keep quiet, 'for his brain had been jarred.' About April 11 he was noticed to spill his food at the table, and to drop things. A day or two after that he went with his mother to make some purchases, and staggered noticeably, so as to excite comment. At about the same time there appeared a hesitation in his speech, not so much a loss of words as a loss of vocalizing power. For a time, during the gradual impairment of speech, there was noticed a slow, monotonous delivery—*e. g.*, 'Y-e-e-e-s, m-a-a-a-m.' Not until within four months can speech be said to have been

[1] *Medical News*, vol. liii, No. 22, p. 608.

lost. Even within the last week he had with difficulty brought out some words and phrases —*e. g.*, 'B-a-n-a-n-a'; and, noticing preparations for a journey, 'Where a-a-r-e you going?' Motor power failed more rapidly than speech, but still slowly, the left side most involved, but both to some extent. Mental power seems to have failed proportionately with speech, although it is hard to differentiate. Still, his mental response to simple demands is now very sluggish. In July, 1888, he bled from the right ear and the mouth. In November, 1888, there was for some time a quite free, watery, offensive discharge from right ear. In March, 1889, had a series of convulsions of left side, which ceased when means were taken to allay gastric irritation.

"Present condition: left arm, leg, face, iris, orbicularis palpebrarum and tongue paralyzed. Right iris reacts, left does not. Cannot speak, yet was never left handed. Mental condition prevents testing for hemianopsia; wets the bed; while usually constipated, yet on taking laxative, is apt to soil the bed; no bedsores. In addition to the paralysis there is evident contracture of left arm and leg, varying in intensity, *e. g.*, hand freely movable on waking, tendon reflexes markedly exaggerated more on left but also on right side; can elicit ankle and elbow clonus easily. Patellar reflexes greatly increased. Attempt to put in standing position brings about spastic leg. Vaso-motor changes shown in sweating hand and foot. Hair always abundant, is still so. Bodily growth going on rapidly. Nails grow rapidly. No atrophy other than flabbiness from disuse; difficulty in deglutition. Heart sounds, except accent of second sound, are normal. Percussion gives flatness on left side, due, I believe, to paralysis of chest muscles. It should also be stated that associated movements occur, as, for instance, when he laughs he brings up the normal right and the paralyzed left arm.

"The history of the case brings out in a strong light the importance of making complete tests of the various functions and organs and the great need of preserving accurate memoranda. We were able only to elicit the bare statement that early in the case the boy saw double. The lad was stated to be deaf in the left ear, and we understand one of the attending physicians tested him and found 'sensation normal.' The boy throughout the progress of the case seems to have suffered little or no pain, except some not well-marked headache. Vomiting was, however, a prominent feature throughout. Again, at the period when he came under our observation, any satisfactory test of the ocular muscles or of the field of vision was impossible. Yet, had we had access to any notes of the manner in which the ocular muscles were successively involved, or the optic nerve or tract, it is not too much to say that the error of location which we made would not have occurred.

"The diagnosis, in view of the case history and appearances presented, was of descending secondary sclerosis, dependent upon gross intra-cranial lesions, probably a tumor. The left side paralysis of motion, with, so far as we could learn, little involvement of sensation, the occurrence, during the progress of the case, of left-sided convulsions, the progressive mental impairment —these all pointed more or less distinctly to a lesion at or near the cortex in the right motor area.

"The fact that he had a hemorrhage from the right ear, followed a few months later by a free, offensive discharge from the same ear, lent additional color to the thought of a right-sided lesion. So, too, the boy being right-handed, the practical retention of the speech-forming functions, long after motor paralysis was complete, argued against

FIG. 2.—Skull-cap removed, cerebrum thrown back and portion projecting from beneath tentorium.

a left-sided cortical lesion, while his emissive speech function was surely impaired. Yet such a question as that uttered just before his coming to Detroit, 'Where a-a-a-re you go-o-ing?' showed even then a capacity for

speech formation. After weighing such evidence as we had, and lamenting such evidence as we had not, Dr. Walker made an exploratory operation over the left ascending frontal convolution with an entirely negative result. While no septic process developed, the boy lived but a few hours. The autopsy then revealed the striking lesion shown in Fig. 2.

"The cerebral mass upon both sides was practically normal; but, upon attempting to remove the brain, there appeared just at the left of the sella turcica a small dense mass adherent to the apex of the petrous portion of the temporal bone. Cutting the tentorium along the line of its attachment to the temporal bone, there rolled up from beneath the tentorium the large cystic mass, represented in Fig. 2. This mass we found compressing the left crus cerebri very greatly, the right crus but little. The tumor seemed to have taken its origin from the apex of petrous portion of temporal bone. As it increased in size it must have grown backward; lying pressed down upon the base of the skull, it found its way beneath the free edge of the tentorium, and having thus started down into the posterior fossa the growth became probably more rapid. Cystic degeneration, with the formation of large cysts, occurred, and in its course it must very early have cut off the auditory nerve. The appearance of the cyst, after removal and inflation to its natural size is shown in Fig. 3.

FIG. 3.—Appearance of tumor when detached. It measures three inches transversely.

"From the neurologist's standpoint the case is instructive as illustrating the value of careful observation of the chronological succession of symptoms, also as illustrating the occurrence of unilateral convulsion with no cortical gross lesion. From the pathologist's standpoint the case is valuable as illustrating the origin of a neoplasm from traumatic causes. The surgeon's standpoint is that of Dr. Walker, and to him I leave the further consideration of the case."

Dr. Inglis has so thoroughly given a history of this case and the *post-mortem* appearances that I will simply describe the method of operation. Regarding the lesion as one of the right motor area, I removed two inch buttons of bone, one above the other, covering the supposed location of the leg and arm function; and not discovering anything, either with the finger or probe, I divided the dura to the extent of one inch without finding anything. A hypodermic needle was introduced in several directions without detecting either fluid or other evidences of a tumor. The operation was done August 22, at 11 A. M., and the man died August 23, at 10 A. M., and an autopsy was made four hours after death.

Case 10. Trephining for Epilepsy and Ataxic Aphasia. Recovery, with marked improvement. A. K., aged 29 years, entered Harper Hospital, January 29, 1890, with following history: Four years ago last June, while assisting in felling a tree he was struck by a branch a little above and in front of the left ear, rendering him unconscious for two hours. For a year following the accident he had frequent attacks of dizziness. About this time the hair entirely disappeared at point of injury; it, however, gradually grew again, the same condition appearing last year. June 3, 1887, he had a right unilateral convulsion; right eye twitched, right hand raised up, and mouth drawn to right side, the leg remaining quiet. These convulsions followed at first two weeks apart, then a week, daily, and finally they might take place at any time. His father states that he has had as many as thirty-four attacks in twenty-four hours. These attacks at first lasted for several minutes, but as they increased in frequency they decreased in severity and duration. At times they are evidently simple spasms without loss of consciousness, while at other times it is a marked convulsion with loss of consciousness. There is always sensitiveness on pressure at the point of injury, and much more so at the present time. During the development of the symptoms just related aphasia developed. He seemed to know what he wished to say, but lacked the power of expressing himself; then again his speech was perfectly natural. For the last six months he has been unable

to write, and for four weeks unable to read. He could see words, but they conveyed no meaning to him. This condition came on gradually, and finally he could not read a word. Dr. Inglis, who saw the case, agreed with me in the advisability of an operation.

I did not promise this man or his friends a cure in the event of an operation. I did not consider the operation in itself dangerous, and possibly great good might be done. Under these conditions, he consented to the operation. Judging from the symptoms just described, it is safe to conclude that the lesion in this case is situated in the hand centre and speech centre. The hand centre is located in front and behind the fissure of Rolando, near its middle, and speech centre at the junction of the ascending frontal and inferior frontal convolutions, a little in front and below the fissure of Rolando. As the fissure of Rolando is the landmark that we wish to locate, a line was drawn directly backwards from the external angle of the frontal bone seven centimeters, a point corresponding with the lower end of the fissure. A line drawn from the upper end of the vertical line, diagonally backwards to the vertex, will approximately indicate the location of the fissure. Having located on the scalp with a blue pencil the lines described, I made an elliptical incision, its convexity upwards, with one sweep of the knife down to the periosteum, and after seizing all bleeding points with catch forceps, I made a similar flap of the periosteum. Using an inch trephine, a button of bone was removed at the angle of the vertical and diagonal lines, the lowest point of the fissure of Rolando.

All that we found was a very thin piece of bone, some thickening of the dura mater and its firm adherence to the skull. This I separated by means of a probe. On incising the dura mater, and further careful exploration with the probe, I did not find any induration of the cortex of the brain. Not deeming further removal of bone necessary, I closed up the wound. In some trephinings I have reimplanted the bone very successfully, but in this case I thought it better to leave it out. A drainage-tube was introduced beneath the periosteum through an opening left after stitching it in place, closing up the scalp with interrupted sutures, except at its most dependent point for the exit of the drainage-tube, and finally covering the whole head with several thicknesses of gauze firmly bandaged on. Operation January 30, 1890.

February 1. Dressings were removed on account of oozing. Temperature 101°.

February 3. There was considerable improvement in the symptoms. Can write his name without much trouble. He has occasionally a slight spasm and some headache.

February 6. Drainage-tube and sutures removed. Continues to improve, manifestly so in his speech.

February 13. Left for his home. Wound entirely healed and improvement in all his symptoms.

Have heard since his return home that there has been a continued general improvement.

Since reading the above I saw this patient July 31. He has had but one convulsion since the operation. His mental and general condition is much better, yet I can see but slight improvement in the aphasic symptoms.

Case 11. Trephining for Fracture of Base and Vault of Skull. Recovery. A. N., aged 15, January 15, 1890, was struck on the head by a tree which he was chopping down. Dr. F. Grover, of Fraser, Mich., who had charge of the case, has kindly written the history: "The boy left his house for the woods at 9 A. M., and was found by a neighbor at 1 P. M., near the tree lying on the ground in an unconscious state. He had evidently lain there, at the least calculation, three hours in that condition, thinly clad and exposed to a temperature below freezing point. When I first saw him, at 7 P. M., he was still unconscious, with a temperature of 98½°; pulse 70; respiration 24. I had the bowels freely opened and urine drawn. On examining the scalp I found it swollen just above the left ear together with oozing from the ear; was unable to detect any fracture. January 16, 9 A. M. Condition unchanged except dilatation of right pupil, incontinence of urine, monospasm and partial paralysis of right arm. 3 P. M. Pulse 60 and temperature 102½°. Suggesting to the parents an operation, I sent for Dr. Walker."

When I saw him at 12 M. he was much in the same condition as just described by Dr. Grover, excepting a decided tendency to opisthotonos—with stertor. After the usual preparations, I opened the skull by removing a button midway over the fissure of Rolando, and immediately discovered a fracture extending to the vertex and below into the temporal, although it was not appreciable by manipulation before the incision. Another button was removed, dura incised and

a good quantity of coagulum washed out. Drainage and the dressings completed. I did not see him again. Dr. Grover states in his letter to me that the monospasm, opisthotonos, stertor and hand jerk gradually disappeared, and in about 48 hours the boy began to swallow milk and recognize the members of the family.

February 1, he was able to sit up and February 8, could walk about the house. March 1, he had fully recovered with the exception of defective hearing in the right ear.

The indications for trephining are so elaborately laid down by Roberts, and others, that I would be unnecessarily trespassing upon your valuable time to reiterate them. Trephining for traumatic epilepsy, according to various reporters, has been attended with remarkable results in very many cases, yet these reports, with few exceptions, were so soon after the operation that it would not be safe to judge of their lasting results. Although I have no written data at command I have, in conversation with a number of surgeons, ascertained that many of these so-called cures of traumatic epilepsy have lapsed, in from one to five years, into their former condition. A reasonable conclusion, then, would be, that these cases cannot be said to be cured until a period of at least five years have intervened without the appearance of any epileptiform symptoms. Many operations for epilepsy must necessarily be explorative, yet when definite location of irritation is determined, an operation is certainly justifiable. At the point of depression, not only should the depression of bone be removed, but the dura, and, if the cortex is sclerosed, that should also be removed, for I am strongly of the opinion that many of the recurrences are due to a defective operation.

The re-implantation of the buttons, or chips of bone where antisepsis is perfect, will undoubtedly result in its successful growth, yet the accuracy of adjustment will in most cases be faulty, and for this reason I would not recommend it, especially following operations for traumatic epilepsy. In all my cases I have never seen hernia cerebri follow where the bone removed was not reimplanted; the cicatrix is firm enough to prevent its occurrence.

The accuracy of location of lesions in the brain is not perfect, as has been shown by several reporters and illustrated in some of the cases just reported. Lesions even, when located, are often past satisfactory surgical interference, and any attempt would be unjustifiable. The most satisfactory brain surgery up to date is that which has been confined to the cortex, such as depressed and compound fractures of the vault, etc. Fractures of base, as related in two of the preceding cases, were attended with the most satisfactory results following trephining and thorough antisepsis of the lesion through the ear. Dr. Dennis, of New York, emphasizes the importance of this in the treatment of fractures of the base of skull. In conclusion, scientific attacks upon the brain require: first, an intimate acquaintance with cerebral topography and the phenomena of the several brain centres; second, a religious observance of the principles of modern surgery.

PUERPERAL FEVERS.

BY PETER McCAHEY, M. D.,
PHILADELPHIA.

The theory or doctrine that there is only one form of puerperal fever, and that it has only one cause, that is, external infection, is fraught with danger to both the patient and the physician. It is dangerous to the patient, because it subjects her to a line of treatment based upon a misconception of the cause and nature of her disease. It is dangerous to the physician, because it implies either negligence or criminality on his part, and places upon him the odium of permitting his patient to contract a preventable disease.

That septic infection will produce fever in a woman after delivery cannot be denied. It will produce disease in any person at any time. The assertion, however, that it is the only cause of puerperal fever cannot stand the test of clinical observation or of critical inquiry. Those who make the assertion attempt to prove it by asking the question: "Can a disease generate itself?" And, upon receiving a negative answer, they point to it as a proof of their theory.

They however overlook the fact that disease is in many instances not an aggregation of germs rioting in the tissues, but a temporary derangement of the normal functions of the body. This derangement may be the result of processes external to the body, such as heat, cold, noxious gases, wounds, dis-

ease-germs, or it may be produced by the patient. The effect of over-exertion, intense mental application, anger, anxiety, fear, etc., in producing various forms of disease is well known, yet it seems to be forgotten when the subject of puerperal fever is mentioned.

The proper answer to the question, "Can a disease generate itself?" is "No; but it may be generated by any serious disturbances of the vital processes, or by prolonged bodily exertion, or by excessive mental strain." In this answer is to be found an explanation of many cases of puerperal fever. It is not uncommon for athletes to be suddenly taken sick after an arduous contest. The physician who is called in correctly ascribes the disease to over-exertion; yet what athletic task can compare with the supreme exertion of a woman in labor? What mental anxiety, whether of student, author or speaker can equal the anxiety of the woman about to become a mother? What pain can equal the pain of labor, conducted, as it usually is, without the giving of an anodyne?

If pain, anxiety and undue exertion are admitted to be the inciting factors of dis ease in one class of cases, why should they be disregarded in another?

The fact is that there are at least four varieties of puerperal fever: idiopathic, traumatic, symptomatic and septic. The idiopathic variety is that in which the fever is purely the result of the mental and bodily exertion of the labor. If the cause be recognized and appropriate antipyretic and calmative treatment be instituted, the prognosis is always favorable. The only exceptions are the pre-existence of serious organic troubles or such excessive exertion as to produce a fatal lesion. The traumatic variety is that which is the result of an injury to the pelvic tissues during the progress of the labor.

If the tissues of the arm, the leg, or any part of the body are sufficiently bruised or lacerated, the local lesion will soon be followed by a general disturbance of the system, accompanied by more or less fever. This fever is termed surgical or traumatic fever. The fever which follows the laceration or bruising of the pelvic tissues in labor, either by the pressure of the forceps or by the impacted head, or the rupture of the perineum, is traumatic in its origin, and should be so regarded and treated. The prognosis is favorable unless the injury be very extensive.

Symptomatic puerperal fever is that in which the fever is due to a co-existing or pre-existing disease. Many cases of so-called puerperal fever are really cases of typhoid fever or of malaria developing late in pregnancy or during the puerperium. The diagnosis of this form of the disease is not easy unless the temperature of the patient be taken—as it should be—before delivery. If the thermometer shows an increase above the normal when labor is approaching, or while it is progressing, "fever" may be predicted as certain to continue during the puerperium; but it should not be termed "puerperal fever." The prognosis in this form is the prognosis of the accompanying disease.

Septic puerperal fever is the result of septic infection. The infection may arise from the patient's surroundings as readily as from any other external source. Bad air may convert a benign case into a fatal one. The prognosis in all coses of septic fever is very grave.

304 North 18th St., Philadelphia.

THE TREATMENT OF HIP DISEASE.[1]

BY EDWARD BORCK, A. M., M. D.,
OF ST. LOUIS, MO., U. S. A.

I offer this paper for the consideration of the treatment of coxitis, soliciting a discussion thereupon—especially upon the treatment of the second stage of this disease. And why the second stage? For the reason that the surgeon very rarely sees these cases in the very beginning, or the incipient stage of the malady. When the surgeon is consulted the patient has, in the majority of cases, already advanced into the second stage: that is, the stage of serous or synovial effusion, with the characteristic deformity and other symptoms, such as great pain. And too often the patient does not come under the surgeon's care until the third stage has developed. In such a case, the previous stages cannot interest him any more; the good that might have been obtained by proper treatment during the first stage, if it had been recognized in time, or the benefit of treatment during the second stage, in which the diagnosis cannot be doubtful, cannot well be mistaken. These chances

[1] Read before the Surgical Section of the Tenth International Medical Congress, Berlin, Germany, August, 1890.

for the patient are gone forever. Admitting the above, it is easily seen why the second stage is the most interesting to the surgeon and very important to the patient. Operative interference during this stage offers much better results for the complete recovery of the patient from the attack, than any other method. If we can cure the patient during this stage, we avoid the annoyance of the third stage to both the patient and surgeon; for the recovery from the third or suppurative stage is very uncertain, and notwithstanding all the care and pains that might be taken, complete recovery never takes place. Therefore, the second stage of hip disease seems to me the most important. I will not speak of the different methods heretofore employed or recommended now, neither do I pretend to offer mine as entirely new, for it is an old saying: "There is nothing new under the sun." But I will say that previous to employing my plan of operating, I had not seen it done by others nor read any account of it.

I called attention to this method at the American Medical Association (Section for Diseases of Children) at Newport, in June, 1889. It occurred to me in this way: having seen a good number of cases in the third stage where suppuration, accompanied by great pain, had already taken place within the capsule, the pain immediately ceased upon the spontaneous rupture of the capsule, the patients were comfortable for the time being, but the destructive process would progress. Now, I argued: if the effusion could be got rid of completely by some radical means of operating, before suppuration had time to begin—that is, during the period of the effusion, when the exudate is yet but serous or synovial—such a course would assist nature and would be crowned with better results than to depend upon the uncertain method of waiting for nature to absorb the fluid, losing valuable time and generally gaining much disappointment thereby. No exudate can be absorbed as long as it remains enclosed within the capsule; spontaneous rupture does not take place during the second stage or must be very rare. I never have observed it. It is only by suppurative process that such a strong capsule can be destroyed and ruptured.

I have tried to accomplish the object with the aspirator, but with no flattering results. I then put my theory of subcutaneous division of the capsule into practice as follows: A small incision is made into the skin over and posterior to the trochanter major; with a strong probe or a dull grooved director, I explore my way, separating the tissues down to the capsule; a small knife with a long neck, such as a tenotome, is then inserted alongside of the director down into the capsule, separating it freely: the fluid escapes into the surrounding tissue and is then absorbed. There is but very little hemorrhage. The patient then enjoys rest. The parts are put in complete fixation with a pair of wire breeches, or similar apparatus that will answer the purpose. Nature, assisted by hygienic treatment, completes the work; the patient recovers within two or three months. According to my experience, nothing can be accomplished with the so-called extension and counter-extension.

It seems to me that instead of a grooved director or probe, a small canula, like a female catheter, with a round, smooth point and a longitudinal opening into the side, would answer the purpose better. The knife could be inserted into this tube, thereby protecting the soft tissues from any injury, at the same time a good deal of the fluid might escape externally through the canula.

This method of treating the second stage of coxitis, answers admirably in all the cases where the disease is caused by an injury—such as a blow or fall. The traumatic origin as an exciting cause of coxitis is predominant, at least in our Western Hemisphere. The constitutional origin is the exception; though local tuberculosis may be a factor in some of these cases. After all, it may not matter much what the cause of the production of the exudate depends upon. If it is once produced, and it remains within the capsule, it is bound to do mischief. The object is to remove it: the sooner the better. In time, the hitherto-existing fear of opening the capsule of a joint will disappear with the progress of modern surgery.

I now take pleasure in presenting to you for examination two of my little patients who were affected with an exudation of the capsule of the hip, caused by an injury. I operated upon them about two years ago—upon both nearly at the same time. This little fellow here, now eleven years old, of poor parentage and with surroundings not to be envied; the other, now about fourteen years old, blessed with better and more comfort-

able earthly goods. You will find a very small cicatrix upon the left side of both patients; otherwise no one could tell at present that they ever were in peril of losing the usefulness of their limbs. They are in perfect health, bright and lively.

HOSPITAL NOTES.

PHILADELPHIA HOSPITAL.

SERVICE OF BARTON COOK HIRST, M. D.

Removal of Fibroids after Labor.

M. W., 28 years old, a primipara, was delivered with forceps in the Maternity Hospital after a prolonged and painful labor. Before delivery two large fibroids could be felt by abdominal palpation; one in front and to the left of the uterus, and the other to the right and behind the uterus. Shortly after delivery the temperature rose and the discharge became foul. For more than a week there was a vigorous fight with an especially bad case of infected endometrium, which was enormously hypertrophied. Daily irrigations of the uterus, the use of curettes and placental forceps finally brought the temperature down nearly to normal; but for over five weeks fever persisted to a moderate degree, even long after the uterus had returned to a natural condition. A vaginal examination showed the fibroids pretty well filling up the pelvis and fixed. As there was evidently an inflammatory action going on in the pelvis, presumably involving the tumors, it was determined to operate while the patient still remained in fairly good condition, instead of waiting for a sharp outbreak of septic trouble. Consequently the woman was removed to the Philadelphia Hospital, where her abdomen was opened. The tumors, each larger than a clenched fist, were found adherent. One had a small pedicle which was easily ligated; the other, a larger one, which was stitched. On the tumor with a slender pedicle was a spot, more than an inch in diameter, of beginning gangrene. The appendages were healthy and were left undisturbed. The patient made an uninterrupted recovery and had a few days after the operation a continued normal temperature for the first time in six weeks since her delivery.

PERISCOPE.

Inflammation of Bone of Typhoid Origin.

Dr. Fürbringer, at the Ninth Congress for Internal Medicine, as reported in the *Wiener Medical Presse*, April 20, 1890, discussed the periostitis and osteomyelitis occurring in typhoid fever. Almost any bone may be attacked, and the inflammation may partake of a purulent character. An examination of the literature on this subject reveals the fact that all the cases so described do not properly belong to the category. Spontaneous infectious osteomyelitis has been confounded with typhoid fever. In other cases many months had elapsed between the fever and the inflammation of bone.

In about 1,600 cases of typhoid fever under Fürbringer's personal observation, the complication had been observed five times. The most striking of the cases was that of his own son, seven and a half years old. Within four months the boy had seven attacks involving ten different parts of the bony system, with a peculiar, insidious wasting fever. Despite the high fever, severe lancinating pains, with nocturnal exacerbations, and cachexia, following the crisis of an intercurrent influenza complete recovery occurred, leaving no traces of periosteal swelling or osteomyelitic deposit. The remaining four cases were in the hospital at Friedrichshain, and included two children twelve years old, a man, twenty years old, and a woman, twenty-five years old. The last presented a pyemic temperature, with rigors, though suppuration did not set in. Recovery took place after several months. In the third case the great trochanter of the femur and the ilium were especially involved, leading to a primary diagnosis of coxitis. Complete recovery resulted. In the fourth case the calvarium was affected in an intense, but passing manner. The fifth patient died of hemato-pyopneumothorax in consequence of perforation of a necrotic area of lung, after the osteomyelitis had already receded.

Fürbringer prefers the name osteoperiostitis, as a separation of periostitis from osteomyelitis is not practicable, as one or the other may occur or both simultaneously involve the same bone. His cases would support the view expressed by Obermaier that the typhoid bacilli find their way out of

the medulla of the bone into the periosteum. The designations periostitis post-typhosa and osteitis of convalescence are inapplicable, as the affection often manifests itself in the course of the fever, as a complication, and may even appear as the initial symptom.

In the symptomatology the nocturnal exacerbations of pain (analogous to the dolores osteocopi of syphilis), and the frequency of the non-suppurative cases are interesting.

A portion of the suppurative cases owe their origin to sepsis, a scrofulous tendency, preceding disease, or perhaps improper treatment. The recession of the periostitis follows in like manner as in syphilis, in the latter, however, the deposits not disappearing so completely.

In the diagnosis the differentiation is to be made from osteo-tuberculosis. The treatment should be expectant, conservative, as long as suppuration does not occur, only when this happens are operative measures indicated. The medicinal treatment with iodine, mercury, quinine, salicylic acid and antipyrin is not commended. Morphine is administered for the excruciating pain and for the sleeplessness. It is important to place the affected part at rest by means of extension, splints, and supports. Proper hygienic surroundings should be secured and an easily digestible diet enforced. Lukewarm baths are also of service.

Artificial Infants' Food.

In the *Medical Record*, July 12, 1890, Dr. George B. Fowler, of New York, says:

The human infant is an object of great solicitude. Every baby born has that interest centered upon him as though he were the first and last of his kind. He is a very dependent thing. Prior to birth he is part of another anatomy and derives his nutrition from the general supply. Subsequently, when he attempts a separate existence, he is apt to find himself the prey of innumerable and unpronounceable bacteria, and the target of domestic ignorance and commercial enterprise in the way of food.

As soon as the child severs its uterine connection it naturally establishes mammary union, and, under normal conditions, upon that monotonous supply it depends and thrives. It is wholly unnecessary to state that indigestion and diarrhœa in children are serious matters, and to quote statistics in proof. All of this is perfectly well known, and the repetition of it need no longer serve to pad a paper on the subject. What we now want is the result of practical clinical experience and methods of cure. I strongly favor common-sense success against theoretical procedures based upon the microscopic examination of feces and bacterial cultures. As far as I am informed, these latter have as yet added very little to our therapeutics as applied to internal medicine.

When it becomes necessary to resort to artificial alimentation in infants we must concoct a food which shall be nutritious and easy to prepare and whose physical and chemical characters shall be adapted to the delicate conditions which it has to meet. Cow's milk, of course, is our mainstay; it ever has been and now is. There is every reason why it should be. The only trouble with cow's milk is the fact that it is designed for a more perfect animal than a baby. The calf is born with far greater physical development than the human offspring.

All are agreed that the important difference between cow's and human milk is the excess of casein that it (the former) contains, and that it forms a too firm and insoluble clot. Hence the various devices designed to modify the solidity of the casein clot, and to adapt cow's milk to the delicate requirements of infants and invalids. I am quite familiar with the methods generally in use for this purpose, but have now come almost exclusively to employ that which it is the object of this brief paper to describe. It is as follows:

Put four tablespoonfuls of rice into three pints of water and boil half an hour; then set aside on back of range to simmer during the day, water being occasionally added by the cook to maintain the original three pints. At night strain through a colander and place on ice. When cold a paste is formed. Three tablespoonfuls of this paste are added to each nursing-bottle (half pint) of milk, and fed during the next day, a fresh supply of rice-paste being under way in the meantime. Should there be constipation I use farina, prepared in same way, and used in the same proportion. Rice is astringent, farina laxative.

From a series of careful experiments with these pastes I am convinced that the hydrated starch granules interpose themselves between the particles of casein and prevent the formation of solid clots. By this process we do not dilute the cow's milk, but,

on the other hand, soften it and add a constituent, carbohydrate, in which, compared with mothers' milk, it is weak. No fear may be had but that starch thus treated and administered will be digested by a child of three or even two months. My success with this preparation has been such that I offer it to the profession with great confidence.

Radam's Microbe-Killer.

The *American Analyst*, July 17, 1890, has an article headed "How to Slaughter the Microbes," and citing an editorial in the *New York Tribune*, with this caption, which says:

"William Radam has recently published a book entitled *Microbes and the Microbe-Killer*. The book reviews the germ theory of disease exhaustively, detailing the long series of experiments made by Mr. Radam and others. It shows the value of the new remedies in destroying the microbes of disease, and clears away some of the mysteries with which medicine has so long been enshrouded. The style is simplicity itself and the book is therefore invaluable in the home and family, as well as of interest to the general reader."

The Analyst then takes the *New York Tribune* to task for inserting the foregoing paid advertisement in its editorial columns, without mark or sign that would indicate to the reader the true character of the paragraph. The *Tribune*, it says, entirely forgetful of its dignity as a journal, of its character for truthfulness and reliability, and of the theories of its former editor, Charles A. Dana, which the *New York Herald* deems of such great value as to adopt them as its motto at the head of its editorial page every day, allows itself to be bought for a trifling sum to endorse an article that has been exposed time and again, and which every sensible person can instantly recognize as one of the vilest nostrums. In fact the *Tribune* does worse than this, for it not only endorses a vile nostrum, but by recommending a so-called book "on Microbes and the Microbe-Killer," admits that some one in the editorial rooms of that paper has read this nonsensical compendium of an ignorant charlatan's cries to a gullible crowd. It needs but a cursory glance at any page of this "book" to prove to any well-balanced mind that the man who wrote it is as ignorant of medicine and pharmacy as indeed he himself admits. Then why does the *Tribune* so far forget its duty to its readers as to publish such an endorsement? In order to satisfy any one who may not at the time have seen our exposure of Radam and his nostrum that we are not too severe, we will quote the following paragraph, which has been recently going the rounds of the press: "Radam's Microbe Killer is recommended to kill and rid from the human system all disease-producing germs." According to Dr. R. G. Eccle's analysis, given in the *Druggists' Circular*, it is composed of "oil of vitriol, impure, 4 drams; muriatic acid, impure, 1 dram; red wine, about 1 ounce; well or spring water, 1 gallon. This concoction is sold for three dollars per gallon, less than five cents being required in its manufacture." Such a combination of ingredients may kill the microbes, but what about the effect on the person taking the terrible dose?

Anemonine.

The *Therapeutic Gazette*, July 15, 1890, in a leading article, states that the anemone pulsatilla has been recommended by Huchard and Eloy in diseases of the heart, and that recently it has been further recommended by Dr. Bazy in the treatment of gonorrhœal orchitis. The latter, in his hospital service, as reported by Dr. Dormant in his thesis on this subject, relates forty-three cases of this affection, in which thirty-seven were perfectly cured without any other medication whatever.

Struck by these facts, Dr. C. Bovet has tested the value of this drug in similar pathological affections of the female pelvic organs, employing first the tincture and then the active principle: anemonine. His results, the author claims, warrant him in designating anemonine as an admirable analgesic for reflex painful affections of the uterus, especially in the diverse pathological conditions which are accompanied by menstrual pain, whether dysmenorrhœa or amenorrhœa, or whether the symptoms result from metritis or perimetritis, or inflammation of the ovaries. He states that his experience in all comprises thirty-four cases, of which twenty-two were of difficult menstruation without discoverable anatomical cause, eight were of metritis and perimetritis, two of uterine prolapse and two of ovario-salpingitis. The author claims that in all of these cases anemonine served to relieve pain within forty-

eight hours. He gives detailed notes of two cases from which we infer that his ordinary mode of administration is to give one-sixth of a grain of anemonine in red wine. MM. Bazy and Dormant have cured blennorrhagic orchitis with the same substance.

Protective Inoculation.

At the meeting of the Société de Biologie, June 7, 1890, M. Charrin reported (*Comptes Rendus*, June 7, 1890), that he had placed under the skin of a rabbit, which he had protected by vaccination against the bacillus pyocyaneus, and under that of a rabbit that had not been vaccinated, three cubic centimeters to each animal, of a virulent culture of this bacillus, after the lapse of forty minutes after the inoculation, and likewise after three hours, and five hours, he took from each of the points of inoculation a single drop of serum by means of sterilized instruments, which he diluted separately in ten cubic centimeters of water, deprived of germs, planted upon agar, in each of a number of tubes which he presented to the society, half a drop of this dilution. It was easy to see that, in the tubes which had been sown with the serum from the vaccinated rabbit, there were infinitely fewer microbes and less pigment than in the others. There was a great difference in the quantity of the bacteria, in their number and in the abundance of their secretions. Moreover, this difference was very plain, as was easy to see on examining the tubes prepared from serum taken within forty minutes, and perhaps sooner, that is to say, from the moment the leucocytes, which at a later period come in crowds, are still very few. M. Charrin called attention to the fact that these observations confirmed what he had heretofore said in regard to this matter; he also stated that he had a number of times repeated the experiment which he was then describing.

Resorcin for Epithelioma.

Two cases of facial epithelioma are reported by Dr. Mario Luciani in the *Riforma Medica*, July 3, 1890, in which the local application of resorcin effected a complete cure. The first case was that of a woman fifty-five years old, married, healthy and the mother of six healthy living children. About five years before a small, hard, red swelling appeared on her forehead. After the fourth year it began to increase in size and finally ulcerated. The ulcer was about the size of a quarter, round, with hard edges and a foul base and with a viscid discharge which formed crusts around the margins. The patient suffered intensely with lancinating pains in the ulcer. As the disease was rapidly spreading and as the patient could not be induced to submit to any surgical procedure, Dr. Luciani prescribed the following ointment.

℞ Resorcin . . . . . 30 parts
Vaselin . . . . . 100 "

Sig. Cleanse the affected parts with a 2 per cent. solution of borax and immediately apply the ointment.

The application of the salve was made once a day. After about a month of the foregoing treatment, the ulcer began to assume a healthier appearance. The margins became soft and the lancinating pains disappeared. The treatment was continued for three months, at the end of which time the ulcer had entirely healed.

The second case reported was that of a healthy woman sixty years old, and the ulcer was situated on the upper lip, near the right corner of the mouth. Ulceration had taken place and a similar course was followed as in the previous case. The same ointment was prescribed and its use was attended by equally happy results as in the first case. In sixteen days after the commencement of the treatment the shooting pains had disappeared and healthy granulations had formed. Two weeks later the edges had become softened and within two months the cure was complete.

Antisepsin or Paramonobrom-Acetanilid.

The *Lancet*, June 7, speaking of a new antiseptic called antisepsin, says that Dr. Cattani finds that, in doses of five-sixths of a grain four times a day, it reduces the temperature of phthisis—especially when it is higher than 102°—one or two degrees, slowing the pulse at the same time, but not the respiration. It acts similarly in typhus and typhoid fever. In pneumonia it is liable to produce a good deal of cyanosis, which, if alarming, should be treated by the inhalation of oxygen. In neuralgia it acts similarly to antipyrin and antifebrin. It would appear, however, that the most important use to which antisepsin can be put is to ap-

ply it to wounds and ulcers. Under a transparent but impermeable coating of antisepsin wounds heal and cicatrize in a surprising manner. It has also proved useful in hemorrhoids and anal lesions. For this purpose suppositories are used containing a ½ per cent. of the drug. One great advantage antisepsin possesses over many other antiseptics is an entire freedom from smell.

Insect Bites.

The following formulæ which we quote from the *Western Druggist*, July 15, 1890, will be appreciated by physicians at the seashore and in the country during the summer months.

Anti-mosquito powder :

℞ Eucalyptol . . . . . 5 parts
Talc . . . . . 10 "
Corn-starch . . . . . 85 "
Mix.

This may be rendered more effective by replacing fifty per cent., or more, of the starch by naphthalin.

Protective against insect bites :

℞ Acetic ether . . . . . 5 parts
Eucalyptol . . . . . 10 "
Cologne water . . . . . 40 "
Tincture of pyrethrum . . . . . 50 "
Mix.

Dilute with from three to six parts of water before applying to skin.

Circumscribed Gangrene Following Vaccination.

The New York *Medical Record*, July 12, says on the authority of *La France Médicale*, April 29, 1890, that at a recent meeting of the French Society of Dermatology and Syphilography, Dr. Balzer reported the case of a woman, twenty-three years of age, who had had malignant syphilis in early life, in whom, a few days after vaccination, there appeared at the site of the pustule a slough, which eventually attained the size of a five-franc piece. It was nearly four months before the slough became detached, leaving an ulcer that took two weeks to heal. The speaker thought this complication was not due to the syphilis alone, but rather to the accidental introduction of septic organisms at the vaccination, the soil being most favorable for their development. The quality of the virus was above suspicion, since this case was the only one of the kind in a number of persons who were vaccinated at the same time and with the same vaccine material.

Cod-Liver Oil as a Vermifuge.

The following formula for an enema of cod-liver oil is said to be useful for the removal of the *Oxyuris vermicularis :* Cod-liver oil, 40 grammes (about 10 drachms) ; the yolk of an egg ; water, 125 grammes (about 4 ounces). In case of failure, an enema of pure cod-liver oil is recommended. Perhaps it would be quite as well—it certainly would be more convenient to use pure cod-liver oil at first.

Wash for Alopecia.

The *Canada Pharmaceutical Journal*, July, 1890, gives the following formula for a wash in cases of alopecia.

℞ Creolin . . . . . ♏i
Bichloride of mercury . . . . . gr. ½
Rose water . . . . . f℥iij
Distilled water to make a pint.

Pyoktanin.

Dr. O. H. O. Scheffels, of Wiesbaden, reports in the *Berliner Klin. Wochenschrift*, July 14, 1890, the disappointment he has experienced in testing pyoktanin in the treatment of cornea ulcers, and in the most courteous manner imaginable records his dissent to the claims made for it by Prof. Stilling. The latter had expressed the opinion that pyoktanin was one of the best remedies for the treatment of ulcer of the cornea, and Scheffels had no good results with it at all.

Dr. L. Webster Fox, of Philadelphia, has also been disappointed in the same way, and the hopes excited by Prof. Stilling's reports need confirmation.

For Headache.

The following prescription is a good one for that form of headache known as migraine.

℞ Caffein. citrat . . . . . gr. jss
Phenacetin . . . . . gr. iij
Sacchar. lactis . . . . . gr. v
M. Ft. Pulv. To be taken in a little milk.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MICROBES.

Since the study of microörganisms has assumed such an important rôle in our knowledge of pathology, the etiology of a disease is not regarded as clearly defined until its microbe has been found; and it has become a common error to couple the name of any microörganism with the disease existing in the subject in which it has been found. This has led to grave mistakes, and recent scientific researches have conclusively shown, that many pathogenic microörganisms which were formerly regarded as the cause of certain diseases, may be found in other diseases, and, indeed, not infrequently in the healthy organism.

A most interesting series of experiments, relative to the presence of microörganisms, supposed to be pathogenic, in the secretions of the healthy air-passages, is that recently conducted by Dr. Besser, of the Pathological Institute of Vienna, and reported in the *Riforma Medica*, July 16, 1890. In the first experiments the nasal mucous membrane of fifty-seven subjects was repeatedly examined. The ages of the persons selected ranged from twenty to sixty years, twenty-eight of them were convalescents and the remainder were persons in perfect health. In all eighty-one examinations were made. In the secretion of the nasal mucous membrane the diplococcus of pneumonia described by Fränkel and Weichselbaum was found in fourteen instances, and in fourteen other cases the staphylococcus pyogenes aureus was discovered. The streptococcus pyogenes was found in seven cultures of the nasal secretion, and Friedländer's bacillus of pneumonia in two. Various microbes were found in the secretions, and in no case was a pure culture of any one microörganism obtainable. Another fact of interest was that these pathogenic microbes were found in no greater number in the convalescents than in the entirely healthy subjects.

Non-pathogenic microörganisms were found in large numbers in thirty individuals, and included the micrococcus liquifaciens albus in twenty-two cases, the micrococcus albus in nine cases, the micrococcus cumulatus tenuis in fourteen cases, the micrococcus flavus liquifaciens in three cases, the staphylococcus albus in two cases, the micrococcus tetragonus sub-flavus in two cases, and in other cases the diplococcus minimus, micrococcus roseus, micrococcus claviformis, bacillus striatus flavus, bacillus albus liquifaciens, and a bacillus similar to the bacillus aërogenes of Müller.

In addition to the above, Dr. Besser also examined the respiratory secretions from other parts of the respiratory tract. The frontal fossa was examined in one case and found to contain the bacillus of pneumonia and the streptococcus pyogenes. In the antrum of Highmore of a patient with pneumonia complicated with meningitis, the di-

plococcus of pneumonia was found. The laryngeal secretion was examined in five cases, and in four of these pathological microörganisms were found. Three were cases of tuberculosis, and in these the streptococcus pyogenes were discovered. The fourth case was one of hemorrhagic variola, and the laryngeal secretion was found to contain the staphylococcus pyogenes aureus.

Dr. Besser finally examined the bronchial secretions in ten patients. The streptococcus pyogenes was found in two cases of pulmonary tuberculosis, and a similar streptococcus in a case of scarlatina. The diplococcus of pneumonia was found in the bronchial secretion of a case of fractured spine, in one of peritoneal tuberculosis and also in a case of typhoid fever. The staphylococcus pyogenes aureus was also found in a case of tuberculosis complicated with carcinoma of the uterus and senile gangrene. Several non-pathogenic microörganisms were also found in the bronchial secretions.

The above researches clearly demonstrate the uncertainty of the pathological action of microörganisms, and call for great caution in ascribing certain morbid conditions to the presence of these microbes.

A brief account of the results of Drs. Gley and Charrin's investigations regarding the invasion of tumors by microbes, will further elucidate the subject under discussion. Their report was made to the Société de Biologie, of Paris, and was published in the *Comptes Rendus* of the Society, July 13, 1890. A rabbit had a bone tumor of the jaw, which projected into the oral cavity and projected exteriorly upon the cheek. The tumor was growing slowly and was benign in character. Microscopical examination showed that the growth was composed of recent osseous tissue. A second smaller growth had also made its appearance on the lower jaw; the soft portion of the tumor communicated with the mouth by fissures. This growth was found to be swarming with bacteria, histological examinations and cultures of which proved that they were none other than the staphylococcus pyogenes aureus.

The case was clearly one of parasitic invasion; and this was easily explainable. The mouth of the animal naturally contained putrifying remains of food, and the tumor being connected with the oral cavity such an invasion was most natural. Drs. Gley and Charrin, in order to verify their hypothesis, endeavored to produce osseous tumors by inoculations with the staphylococcus aureus; but every effort failed. Indeed, they were not able to attribute any pathological action to this microbe, and it is their conviction that the pathogenic property ascribed to the staphylococcus aureus is purely hypothetical.

These experiments demonstrate the cautiousness that should be used in ascribing any pathogenetic property to a microörganism, and the necessity, before so doing, of excluding every possibility of microbic invasion. The value of both Besser's as well as Gley and Charrin's investigations is most apparent, and it is to be hoped that they will suggest the exercise of less zeal and greater discretion in attributing pathogenetic properties to microörganisms found in various diseased conditions.

PHYSICIANS' REGISTRATION ACT.

In the REPORTER, June 21 and June 28, 1890, we called attention to the way in which the Physicians' Registration Act in Philadelphia was being administered, and criticised it pretty sharply. At the same time we expressed our desire to give full credit to any improvement which should be manifested in the Prothonotary's office. We take pleasure in doing so, now that the opportunity has come.

A recent visit to the Prothonotary's office disclosed the fact that the affidavits of Drs. H. W. Lobb, Eliz. Wiegand, J. A. Heintzelman and Kate Koenig, which were spoken of before as not to be found, have been put on file. The papers relating to the registra-

tion of physicians seem to be now properly filed and kept as the law directs. In the registration books the names of many physicians for whom the Prothonotary's clerk had signed have been affixed personally to their affidavits. In some cases the signatures "per H." still remain, and in others the registrations are still without signature. It is evident, however, that an earnest endeavor has been made to correct the discrepancies pointed out by the REPORTER. All the papers inquired for at our last visit were in their proper places and were quickly found. We believe that in a short time the few remaining inaccuracies will also be corrected.

The REPORTER'S investigations in this matter have therefore accomplished what it was intended that they should, namely, the amendment of existing faults and the securing of a stricter compliance with the law's commands. We have no doubt that a careful examination of the methods in vogue in other Prothonotary offices in Pennsylvania would be followed by equally good results. It is probably too much to expect that medical laws will be carried out to the satisfaction of medical men unless they have an observant and practical way of looking after them.

EPIDEMICS OF SUICIDE.

The Philadelphia *Press* recently called attention to the fact that there had been six suicides in Philadelphia within forty-eight hours, and repeats the annual query why so many suicides should occur in summer as compared to winter. It seems to be a fact that the disposition to suicide is greatest during the hottest season of the year; and this is probably due in part to the irritations inseparable from this season. These are familiar to all the world in a way; but they are hardly appreciated as they would be if those who are comfortably circumstanced knew just what must be endured in the heats of summer by those who have no wealth with which to purchase a respite from the burdens and cares of their daily work and the almost intolerable rasping of the domestic relations, at a time when each individual is more or less a source of annoyance to every other. At such a time the heat and the discomfort of small and crowded dwellings bring the disposition of many to a pass where slight grievances work a disproportionate amount of grief or anger, and those wills which stand near the boundary of rational control are likely to give way under the strain.

This is a picture which physicians will recognize, and also those representatives of the newspapers who, like us, are called often into the by-ways of the busy world. It is, therefore, no wonder that suicides are more frequent in the summer season than at other times. But there is another reason why the number of suicides is likely to be great at some particular time, and this is the publicity which is given to the fact, and the details of suicide by the daily press. It is probable that the mere mention of the suicide of another may prompt one, who might otherwise have escaped the temptation, to give way to the morbid impulse to self-destruction. It is not easy to see how this risk can be avoided in these days of rapacious news-gathering and of omniverous appetite for sensations, and it may be that the final result is what is best for the race; but, at times we are inclined to think that those have no reason for wonder who themselves contribute to the result, and would like to observe the effect of the seasons without the seeming co-operation of the newspapers. It is possible that in this case the occurrence of suicides in close proximity in point of time would not happen so often, and that some feeble souls would escape the fate which seems to be so ready to seize them. At least we should be able to discriminate a little better as to the actual cause of these occasional and unfortunate so-called epidemics of suicide. Just at present when so much is being made of the influence of "expectant attention," it is important not to overlook the part which it may play in suicide.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE-HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEAR 1889. 8vo, pp. 477. Washington: Government Printing Office, 1889.

The most important parts of this volume, so far as the general practitioner is concerned, are the sections on the Diagnosis and Treatment of Yellow Fever, the former by Dr. John Guitéras, now of Philadelphia, and the latter by C. Fagét, of New Orleans.

Dr. Guitéras declares that the diagnosis of yellow fever rests upon the three following cardinal symptoms: the facies, the deviation from the general law of correlation between pulse and temperature, and the albuminuria. The facies is best observed at the beginning at a slight distance from the patient. The face is red and suffused, the upper lip somewhat turgid, but the special peculiarity is found in the eyes. The borders of the lids are slightly reddened, the eye-ball is watery, injected and somewhat yellow. This yellowness is the most important of the eye symptoms. The eye of yellow fever is a ferrety eye tinged with yellow.

As regards the peculiarity of pulse and temperature ratio, this is found to consist in the fact that the pulse begins to fall during the fastigium of one to four days. An average of twenty-four cases gives, for the morning of the first day, a pulse of 109, and for the evening of the same day a pulse of 108. The temperatures corresponding to these averages were found to be 101.8° Fahr. for the morning and 102.6° for the evening. The pulse continues to fall disproportionately during the lysis and reaches very often abnormally low figures—between 40 and 60.

The albuminuria of yellow fever is remarkable for its transitory character. It appears and disappears suddenly, leaving no trace behind it. It may present itself within the first twenty-four hours, or not until the third or fourth day, and the quantity of albumin passed appears to increase with the severity of the case; but Dr. Guitéras does not think an excess of albumin an indication for fatal prognosis. Tube casts are often found in abundance.

Dr. Fagét remarks that the general plan of treatment should be to make the patient comfortable and keep up his strength by proper alimentation. Antipyrin is given to reduce high temperature and to allay the nervous pains in the head, back and limbs. A liniment of camphor and chloral, of each two ounces, with fifteen grains of atropine, is recommended for the neuralgic pains. Calcined magnesia is useful as an antacid and to relieve the bowels if they are overloaded. For black vomit he gives tincture of the chloride of iron; this, with quinine, he believes to be the most important remedy. Dr. Guitéras speaks highly of three doses of two or three grains of calomel with three grains of compound jalap powder, given every three or four hours. He generally continues the jalap alone, without the calomel, in small doses, so as not to produce griping or diarrhœa. These drugs, when given in capsules, are retained by the stomach and appear, in fact, to allay vomiting.

The papers we have just mentioned form, of course, only a part of the volume. In addition to the large amount of statistical information there are other valuable papers, surgical reports and reports of necropsies, etc.

TENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF ILLINOIS. With an Appendix. 8vo, pp. 313. Springfield, Ill.: Springfield Printing Co., 1890.

The present volume is the report for the year 1887, which has been delayed in its publication owing to complications in the State printing contract during the years 1887 and 1888.

After referring to the introduction of cholera into this country in the autumn of 1887, the Report deals with the effect which has followed the enforcement of the Medical Practice Act of Illinois, which went into effect July 1, 1887. The report says: "It is not too much to say that had no other results been accomplished, by enforcing one of the provisions of the law, than that of putting an end to the itinerant practicing and vending of medicines, with free tooth-pulling, minstrels, Indian show and other accompaniments, great benefit has been rendered the people of the State. Thousands of dollars had been annually fleeced from the confiding public before the law went into effect. In eighteen months after the law went into operation, $21,000 in license fees were refused by the Board as a matter of principle, it being deemed prejudicial to the public welfare to allow such practices."

The Register of physicians and midwives shows the effect and influence of the Board on higher medical education. In July, 1887, there were 3,800 non-graduates who were practicing medicine; on January 1, 1890, only 575. In July, 1887, there were 1,125 midwives; at the present time only 731, of whom 292 have licenses based upon years of experience, 145 upon examination by the Board and 294 as graduates, upon certificates from schools of midwifery or examining boards. The report adds that the State of Illinois is the only one in the Union which exercises supervision over midwives.

The report, while chiefly valuable to the people of Illinois, is an encouragement to all who are interested in higher medical education and opposed to quackery. We hope it will be a stimulus to other States to adopt equally wholesome legislation. The Secretary of the Board, Dr. John H. Rauch, is especially to be congratulated on the good showing made, and upon being allowed to continue his valuable work.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS. Vol. II. For the year 1889. 8vo, pp. xxxviii, 397. Philadelphia: Wm. J. Dornan, 1889.

The second volume of transactions of the Association is a very creditable production. The subjects treated of are largely gynecological, and embrace most of the topics which recently have excited more than passing interest. The papers are almost exclusively clinical, which, while increasing their present interest, detracts from their permanent value. The amount of work done shows great activity for so young a society.

—A novel leech jar has been brought out in Germany, the innovation consisting of a vertical partition dividing the vessel into two equal compartments, to be filled respectively with pure water and with moist peat, so that the inhabitants may change their abode at pleasure.

CORRESPONDENCE.

Visionary Ideas in Medicine.

TO THE EDITOR.

Sir: It is an undeniable fact that although our profession is advancing we have many things to hold it back, and one of these is the influence of enthusiastic but theoretical teachers and writers. Many to-day are teaching fallacies in our colleges and sending out false notions in our journals which will be failures when tested in practical life.

The medical profession will never rightly advance until a clear distinction is made between the sound teaching of practical men and the finely-wrought theories of the visionary. It is not students' work to make this distinction but that of the experienced practitioner to decide the matter and lead off in the right direction. On each of us rests a responsibility which we cannot throw off, and should not if we could; for it not only interests us and the present, but its influence will tell in the future. Many of our teachers and writers are bringing to light new discoveries, which cannot fail to be of use when properly utilized; but often these new things look like mountains to them, when they are only small matters, and before their real importance is known some poor mortals are experimented on, and to their lasting injury. Again, in this country the practitioner is influenced somewhat by the manufacturer and dealer, and if he is not careful will be persuaded to use some new remedy, of which he knows really nothing, in place of one already proved satisfactory.

The true teacher is a busy man, he is right in the field where the golden facts are found; his wits are sharpened by the hard rub of practical facts, and he shows his knowledge by the quality of his work rather than by the selection of his words.

The words of the trusty writer have the flavor of the busy world, and we know by what he tells us that he deals with practical facts, out of which, if properly handled, we can build a structure which will stand the test of time, and new discoveries will not injure, but only help to make complete.

Yours truly,

P. N. JACOBUS, M. D.,

Washington, N. J.

—Aristol is said to be an excellent application for piles both external and internal.

QUESTIONS AND ANSWERS.

[In this department will be published questions on any medical subject by readers of the REPORTER, and answers by the EDITOR or by other readers.]

Treatment of Dry Palms.

DR. W. C. EUSTIS, Farmington, Minn., writes: I have a patient, a girl eleven years of age, healthy and of healthy parentage, who for more than a year has suffered from an excessive dryness of the palms of the hands. When kept out of water as much as possible the palms are simply very dry but crack scarcely any. So far I have been able to afford only some degree of relief, but nothing approaching a cure. There has never been any discharge from the palms, nor is the difficulty to any extent a chapping of the hands; the backs of the hands are quite soft and natural in every respect. I saw a similar case in an adult early in my practice who had tried the most experienced doctors for upwards of two years, with only partial relief, and had finally given up doctoring altogether. I would be thankful for any helpful hints through the REPORTER.

[Dr. Eustis will probably find it helpful to order for his patient:

℞ Lanolin
Adipis benzoat. . . . . aa ℥ss
Ol. amygdal. amar. . . . . gtt ij
M. Sig. Gently rub in three times a day.

The general functions of the body will be looked after, of course, and the following prescription may be given:

℞ Lithiæ citratis . . . . . gr. xxiv
Aquæ . . . . . f℥iii
M. Sig. A teaspoonful four times a day.]

Cholera Infantum.

DR. S. GLEASON, Carthage, New Mexico, writes: In reply to your invitation, in the REPORTER of August 2, for brief communications relating to the etiology of cholera infantum, I will say that during a practice of seven years in this country I have seen but two or three cases of cholera infantum, none of which occurred during the hottest part of the season. For a good many days in summer the thermometer stands here at 110° in the shade, and it would seem as if heat *per se* could not be a cause of the disease.

As to uncleanliness and poor food supply: Most Mexican children have but two baths in their earthly career: one when they come

into the world and one when they leave it; and their food is of the poorest and most indigestible material. Yet I have never seen a case of this disease among them.

I believe that the flood of sunshine to which we are exposed every day in the year is unfavorable to the development of the poison, whatever it may be.

NOTES AND COMMENTS.

Prescription of Exercise.

In a paper published in the *New York Medical Journal*, August 9, 1890, Dr. Thomas M. Bull says:

For a doctor to tell a patient to "take exercise" is about equivalent to saying "take medicine," and is likely to be followed by about the same results. A patient may injure himself by taking exercise of the wrong kind, quantity or intensity, the same as by taking a wrong drug or dose. The sooner doctors realize that they must be more specific and careful in prescriptions of this character the better. It is also as important to make the exercise pleasant as it is to make medicines palatable; otherwise it will not be taken regularly or with any relish. In order to prescribe exercise with benefit it is necessary to have clearly before our minds what may be accomplished by it. The following seem to be the most common indications for its prescription: 1. To preserve the health of sedentary people; 2. To reduce deformities; 3. To alter weight; 4. To overcome a tendency to hereditary and organic disease.

Every physician is familiar with the long list of ills which are certain, sooner or later, to fasten on those who lead strictly sedentary lives—headache, nervousness, sleeplessness, neuralgias, disorders of the stomach and liver, constipation, hemorrhoids and the thousand and one indefinite ailments which render life miserable both to the patient and physician. All of these can to a large extent be prevented, and most of them benefited and cured, by exercise properly regulated as to time, amount and accompaniments. Exercise acts here as the great balance-wheel to keep up constant motion in all parts. It will enable the sedentary man to eat and digest more, to sleep better, and to go at his work with a greater vim than any other thing. What the special indications are for each one of these disorders it would probably be useless to try to discover or carry out. But the general rules in prescribing for sedentary men are as follows:

1. Consider the man and prescribe something which can be carried out. Don't tell a clerk on eight dollars a week to go horseback-riding at two dollars an hour, or try to have a two-hundred-and-fifty-pound man ride a bicycle, because these means are those you enjoy. Don't try to force the inland resident to row, or the one who dwells at the seaside to climb mountains. All are good enough in their places and in proper cases, but as a prescription they are not so likely to be carried out as something more suitable.

2. Whatever you prescribe to patients, have them begin gradually. The novelty of a thing will be apt to make a man overwork at first, in which case he is sure to be disgusted the next day and not likely to try it again if he thinks he will have the same experience. I have known a piano player so used up by his first few minutes with a pair of Indian clubs that he never touched them again. So always give the caution and tell them that if soreness or stiffness follows, it will quickly wear away, and soon no amount of exertion will make them sore.

3. Whenever you prescribe exercise of any kind, be sure you are acquainted with the state of the heart, lungs and arteries of the patient. Also see if he is ruptured or liable to be. It will certainly increase his respect for you and make him more apt to follow out your prescription if you insist on inquiring into these matters before prescribing. A man liable to apoplexy on excitement or afflicted with a double aortic murmur certainly ought not to be in a foot-ball rush line, or one with a commencing inguinal hernia in a tug-of-war, and a great deal of the odium which, in the minds of many, rests on athletics, might be avoided if only those liable to trouble were told so before commencing work. Remember that if you prescribe athletics your prescription cannot be carried out on rainy or very cold or muddy days, or in winter. The advantage which athletic has over gymnasium work is, of course, due to the fact that it is done in the open air, and you can secure the good effect of an occasional contact with mother earth, besides the additional influence of the sun, wind and water. But at least one-half of the time it is impossible to take athletic exercise with pleasure or benefit. So, at the

same time you give an athletic prescription, instruct your patient to take proper exercise also at home or in a gymnasium, else, if the weather is such as it has been for the last two years, he will be most of the time out of training. Remember that man is a gregarious animal; that exercises which taken alone would be very irksome, if performed in a class are very pleasing. It requires more nerve and perseverance than most men possess to take exercise for which they have no particular liking, the same as they would a dose of medicine. But if they see others doing the same things—if a little emulation is excited—and especially if music, marching and other attractions are introduced, that which before was disagreeable soon becomes a positive pleasure. It is for this reason that a well-regulated public gymnasium, if easily accessible, is better than a home gymnasium.

Then, again, be careful to instruct your patients what to do immediately after exercise; they are liable to throw themselves on the ground or stand in draughts while still perspiring, and then blame the exercise for the soreness or bronchitis which they experience. I have been a daily, or at least a tri-weekly, visitor at a gymnasium for six years, and during that time have had but one cold. Let them understand that the motion must not cease until they have had a cool bath and a rub with a coarse towel (or the rub alone), and have their clothes on. I have never seen any one catch cold from exercise who faithfully carried out these directions.

Antipyrin for Diseases of Children.

At the last meeting of the American Medical Association, held at Nashville, May 21, 1890, Dr. S. Henry Dessau read a paper on the therapeutic value of antipyrin in some diseases. The article is published in the *Archives of Pediatrics*, August, 1890.

The only disease affecting children in which Dr. Dessau employs antipyrin as an antipyretic is pneumonia: either the croupous or the catarrhal form. And even here he seldom resorts to it unless the temperature runs above 104° F., near the onset of the attack, inducing symptoms of nervous irritation, indicating a tendency to convulsive seizures. The chief danger of high temperature in the pneumonias of children is the production of an attack of convulsions, due to cerebral congestion; this latter condition being due to the poorly oxygenated state of the blood, thereby offering a highly susceptible condition for the convulsive seizure, through the effect of the fever. It must not be overlooked that pneumonia is a self-limited disease, unless of the disseminated catarrhal form in children, and the less active interference with its natural course is employed the better will be the results. Antipyrin, besides its antipyretic action, will allay nervous disturbance when not given too freely, and this point is of prime importance. Dr. Dessau administers from two and a half to five grains dissolved in water or suspended in syrup, repeated every hour for four doses, once in each twenty-four hours. He prefers, if possible, to give it towards evening, so as to secure sleep, which commonly follows as a result of its sedative action. Occasionally it may occur that the little patient is asleep before the time for the third or fourth dose has arrived. In such a case the entire dose is not given, as the sleep is ordered to be undisturbed.

Dr. Dessau has never seen any but the very best results follow the use of antipyrin in the pneumonias of children when administered in the manner above mentioned.

The most marked success with antipyrin was in the treatment of chorea. A girl, twelve years old, who had chorea with rheumatic symptoms, was treated for two months with arsenic and bromide of potassium, the arsenic being gradually increased in dose until she was taking seven and a half drops of Fowler's solution with fifteen grains of bromide of potassium three times daily. A part of this time iron and digitalis were also administered for a cardiac complication. The choreic movements, which were of the minor form, not improving, antipyrin in ten-grain doses, repeated three times daily, was given, and in four weeks all choreic movements had ceased.

This treatment for chorea has been used by Dr. Dessau thus far in seven cases, two being still under treatment, with improvement. Of these seven cases, one was cured in one week, two in three weeks, the one above related in four weeks, and one, the severest of all, in six weeks. In one case the drug caused an urticarious eruption.

For the past two years Dr. Dessau has depended entirely upon antipyrin as a remedy in pertussis. He had treated forty-five cases of pertussis, two being complicated with a severe degree of catarrhal pneumonia, with

antipyrin, and all have recovered in a shorter period of time, or the attacks lessened in number and severity, than previous cases under any former plan of treatment. Ordinarily, Dr. Dessau's plan, in a simple case of pertussis, is to administer from three and a half to seven and a half grains of antipyrin in syrup of wild cherry and water, three times daily, according to age. Where pneumonia became a complication, the method of administration was changed to that before mentioned in the early part of this paper.

Many practitioners have no doubt met with cases of urticaria that have resisted the time-honored treatment of rhubarb and soda mixture, either alone or combined with bromide of potassium or many other remedies. To such Dr. Dessau confidently recommends the use of antipyrin, given either alone or in the rhubarb and soda mixture, or what is pleasanter, the compound syrup of sarsaparilla. He does not refer to ordinary acute attacks of urticuria, that will disappear under restricted diet alone, but to persistent cases that will continue in an intermittent manner for months in spite of arsenic and all other known remedies.

[The value of antipyrin in chronic urticaria of a nervous origin is referred to by Dr. Nitot, in the *Deutsche Medizinal-Zeitung*, July 7, 1890. Dr. Nitot tested the drug in four cases of nervous urticaria, in which gastro-intestinal derangements had clearly no part, and a cure was effected in every case. The dose given was seven grains daily, and in some cases the treatment was continued at intervals during a period of several weeks or months.—Ed. Reporter.]

Simultaneous Fracture of both Clavicles.

An interesting case of simultaneous fracture of both clavicles is reported by Mr. Herbert W. Page, in the *Lancet*, July 12, 1890. A railway porter was brought one night some fifty miles to St. Mary's Hospital, London, where Mr. Page is surgeon, under the supposition that he had received severe internal injuries, for his shoulders had been caught sideways between the buffers of two wagons. He was much collapsed and had great pain at the upper part of the chest. No examination had been made. On admission it was found that the only injury was oblique fracture of both clavicles at corresponding points—the middle of each bone. There was the usual displacement, and as this was most easily and perfectly rectified by lying flat on the back without a pillow for the head, so was he treated, and he soon was discharged with both bones firmly united.

While recording this example of a very rare form of injury Mr. Page refers to another which is equally, if indeed it be not more uncommon, and which he had the opportunity of seeing when dresser at the London Hospital in 1869. A woman was admitted with dislocation of her right clavicle at both ends. The clavicle was separated from its attachments at both ends, and came to lie almost at right angles to its natural position —the acromial end backwards, the sternal end forwards. The reduction of this dislocation was extremely difficult and was not entirely successful.

Sprains of the Ankle.

Dr. Reclus, a hospital surgeon in Paris, has recently published an account of a method of treating sprains or subluxations of the foot, which is referred to in the *Medical Record*, July 19, 1890. The treatment is a mixed method, founded on the employment, successively, of an elastic bandage, hot foot-baths and massage. As soon as the sprain is produced, the region affected should be enveloped with an elastic roller, the application of which should be commenced at the roots of the toes, and it should be rolled round the foot, on to the instep and about midway up the leg; it should be tightened just sufficiently for the roller to be kept in place. When the sprain is not very severe, slight movements may be permitted. Twice a day, morning and evening, the elastic bandage should be removed to wipe and dry the parts, as under the impermeable tissue there accumulates sweat which soon decomposes, assumes an insupportable odor, and, what is more serious, irritates the integuments. Without this precaution it might provoke eczematous, and even furuncular, eruptions. It is then that the second precept of the treatment should intervene. The affected joint should be plunged into a bath the temperature of which should be progressively raised until it attains 48°, 50°, and even 55° Centigrade. Under its influence the pain ceases, if the elastic bandage had not already dissipated it, the circulation is increased, and perhaps also the nutrition

changes. These divers modifications have probably a great deal to do in the more rapid resorption of the peri-articular exudations. It is also to promote resorption that massage is added to the pressure of the elastic roller, and this massage constitutes the third part of this mixed treatment. The elastic roller has certainly the advantage over massage in acting in a continued manner, but it cannot, like massage, expel from the meshes which contain them the solidified clots, for which purpose the strong pressure of the finger, "petrissage," would not be too much. After the immersion of the foot in hot water for ten or fifteen minutes and after a *séance* of massage from ten to fifteen minutes, the limb is enveloped for twelve hours in the India-rubber bandage. The author observes that the sprain must be very severe if complete cure is not obtained in less than fifteen days.

Diagnosis of Rupture of the Bladder.

Dr. W. W. Keen, in *Annals of Surgery*, July, 1890, suggests a new mode of ascertaining whether or not the bladder is ruptured. The idea occurred to him recently, while using Senn's hydrogen gas test on an animal. The advantage which filtered air has over hydrogen gas is the ease with which it may be employed and the fact that no time is lost in its preparation. He has not used it on the living body.

The following directions explain Dr. Keen's plan:

Introduce the catheter and empty the bladder of any urine that may be present. Connect the catheter with an ordinary Davidson's syringe, which has been thoroughly disinfected. Tie a good large mass of absorbent cotton over the distal end of the syringe. Then pump air into the bladder. Should no rupture have occurred, the rounded elastic, tympanitic bladder will appear in the hypogastrium. Should there be a rupture, the air will escape through the rent into the general peritoneal cavity, and distend the entire belly. Dr. Keen says that it is perhaps a needless precaution to have the air filtered from germs by means of the cotton in carrying out this procedure, for, should the bladder be ruptured, laparotomy would be done, and the unfiltered air of the room would gain free access to the peritoneal cavity from the abdominal wound; while if the bladder is not ruptured, the air would escape at once by the catheter, and have done no harm. He decidedly prefers to filter the air, however, so as to exclude any possibility of infection.

Tuberculosis Transmitted by Musical Instruments.

The *Medical Press and Circular*, July 9, 1890, says that a surgeon-major in the French army has been making some investigations into the nature of the fluids obtained from a trumpet which had been used for several months previously by a phthisical musician. As the result of his experiments he found that the liquid with which he washed out the instrument was highly virulent, and cultivations of the tubercle bacillus could readily be obtained with it. It seems, therefore, probable that an instrument so infected might become a source of transmitting tuberculosis. However, it is known that, according to Cornet, tubercular sputa become dangerous in this respect only when they are dry. In the moist state they do not give off any infective particles, even in strong currents of air. The interior of a trumpet almost always contains saliva, and the evaporation of the latter could only take place with difficulty. Still, under the circumstances, the author suggests that it is only prudent to sterilize all musical instruments into which saliva escapes. This disinfection should be invariably carried out in the case of persons who play on these instruments while suffering from phthisis. The process of disinfection is quite a simple one; the instruments may be washed out with carbolic solution, five per cent., or in the case of metallic ones they may be immersed in boiling water. Of course, on the author's hypothesis a trumpet or any other similar musical appliance may become the focus of infection, not only of tubercle germs, but of many other pathogenic microbes.

Paraldehyde for Traumatic Tetanus.

In the Moscow bi-weekly *Meditzinskoïe Obozreniё*, No. 3, 1890, p. 266, Dr. Alexandr A. Nevsky, of Gorokhovetz, states that the perusal of Dr. V. E. Ignatïeff's paper (*vide* the *Provincial Medical Journal*, Jan., 1890, p. 46), induced him recently to try paraldehyde in a severe case of traumatic tetanus. The patient, a robust male peasant, twenty-one years old, was brought to the

author's hospital, on the fifth day of the disease, and for four days was treated by hypodermic injections of hydrochlorate of morphia and internal use of chloral hydrate. The man's condition, however, grew worse daily. On the tenth day of the disease paraldehyde was resorted to; the drug being given internally in doses of from one and a half to three drachms, once or twice a day. About the sixteenth day, the spasms began to subside, and disappeared about the twenty-first day, the patient being practically well on the thirty-eighth day. The total quantity of paraldehyde administered during twelve days amounted to nearly four ounces. Pointing to his case as well as to similarly successful cases published by Ignatïeff (two of his own and one from Tchervinsky's practice), Coudray and O'Hari, Dr. Nevsky arrives at the conclusion that paraldehyde should be placed among the most useful remedies for the disease in question.

Comfort for Smokers.

The *British Medical Journal*, July 12, 1890, says that smokers will be pleased to learn that Dr. Gautrelet, of Vichy, claims to have discovered a method of rendering tobacco harmless to mouth, heart and nerves without detriment to its aroma. According to him, a piece of cotton wool steeped in a solution (5 to 10 per cent.) of pyrogallic acid inserted in the pipe or cigar holder will neutralize any possible ill effects of the nicotine. In this way not only may the generally admitted evils of smoking be prevented, but cirrhosis of the liver, which in Dr. Gautrelet's experience is sometimes caused by tobacco, and such lighter penalties of over-indulgence as headache and furring of the tongue may be avoided. Citric acid, which was recommended by Vigier for the same purpose, has the serious disadvantage of spoiling the taste of the tobacco.

The Cholera.

There were nine new cases of cholera and seven deaths from the cholera at Villajoyosa August 10; six new cases and one death at Llerena, and two new cases and seven deaths at Arges. There was a slight decrease in the number of new cases and deaths in Valencia. Since the first outbreak there has been 1,600 cases there, 788 of which proved fatal.

It was reported, August 15, that the cholera was nearly extinct in Badajoz. There were still a few cases in Alicante and Valencia. At the latter place two deaths had occurred in the prison, which contains 1,500 convicts.

There were 126 deaths from cholera at Jeddah August 10, and at Mecca the deaths from the disease numbered 108. On August 13 the deaths from cholera at Mecca were 40 less than on August 12, and at Jeddah the death roll showed a decrease of 10.

It was reported from Constantinople, August 14, that five persons had died at Nicolaieff from a disease supposed to be Asiatic cholera. Eleven cases of the disease had been reported there so far. The Porte had decided to quarantine all arrivals from places on the Black Sea.

Three cases of cholera were discovered at Cairo, August 15. One case had proved fatal. The appearance of the disease caused intense excitement. People of all classes made hurried preparations to depart.

The steamship City of Pekin, at San Francisco, on August 14, from Hong Kong and Yokohama, brought advices of the prevalence of cholera at a number of Japanese cities.

How to Use Sulphonal.

Dr. J. Madison Taylor, in the *University Med. Magazine*, protests against the growing distrust of sulphonal, believing that when judiciously used it shows rare and admirable qualities. But he thinks it has been improperly administered, and gives his opinions based upon an extensive use. He gives from five to seven grains, rarely more than ten grains, beginning in the afternoon, and repeating about every three hours. Three or four doses will usually be followed by excellent results in securing a normal night's sleep. It seems best administered in a little soup or milk. In those who are wakeful towards morning, it is best to give the drug towards bedtime to secure its tardy effect. Thus used sulphonal gives excellent results, and seems free from danger or unpleasant effects.—*Indiana Med. Journal*, July, 1890.

Fluoroform.

The *Monthly Journal of Pharmacy* announces that M. Meslans, a French chemist, has succeeded in preparing a gas called fluoroform. It is the analogue of chloroform

and iodoform, the chlorine and iodine of these substances being replaced by fluorine in fluoroform. It is colorless, and has a pleasant ethereal smell suggesting that of chloroform.

Hypnotised by a Lunatic.

The newspapers of July 26 contained reports of a curious case of supposed hypnotism at London, Ont. The hypnotiser is said to be a women forty years old who has lost her reason. The subject is a young woman about twenty years old. The story is a sensational one, and probably quite wide of the truth. It is being investigated for the REPORTER and the facts will be published as soon as possible.

Death Under Chloroform.

The following case is reported in the *British Medical Journal*, July 12, 1890. A boy, nine years old, was admitted to the Eye and Ear Infirmary in Liverpool on June 24, suffering from complete rupture of the right eye. The child was placed under the influence of chloroform and the necessary operation performed. The boy seemed to have recovered when he suddenly turned pale and faint. Every possible remedy was applied, but the patient did not again recover consciousness.

South Carolina Medical College.

The recently-issued announcement of the Medical College of South Carolina inaugurates a change in the methods of Southern schools, in demanding in future a three years' graded course as a requisite to graduation. This change, instead of beginning with the session of 1892, as was agreed at the recent Nashville meeting, goes into effect at the opening of the coming term. Commenting on this, the *Southern Medical Record*, August, 1890, says:

Too much praise cannot be accorded this old and efficient institution for this bold and aggressive step, and we trust that the reward will be such as it deserves. It will, we believe, undoubtedly lessen the number of students at the coming session, but the Faculty will be repaid in the consciousness of having done the right thing, and having taken a step voluntarily, which must in the near future be forced upon all.

As a rule the average medical student of this section looks for the school where he can get his diploma cheapest, quickest and with the least labor, so that colleges dependent for support upon the fees received for tuition have been compelled in self-defense to demand a co-operation of schools in such a radical reform, and this fact entitles the Charleston school to much credit for taking the initiatory. We only trust that the good example will be followed by others, and in the meantime we extend to the Medical College of the State of South Carolina our most distinguished consideration.

Woman's Medical College of Georgia.

This institution begins its second annual term October 1, 1890, under the Presidency of Dr. A. G. Thomas, of Atlanta, Ga. The class will consist exclusively of women. The concern offers to teach at half rates the wives and daughters of physicians, clergymen and Confederate veterans. For information, address J. W. Stone, M. D., box 215, Atlanta, Ga.

American Rhinological Association.

The American Rhinological Association will hold its eighth annual session at Louisville, Ky., October 6, 7, 8. Subjects relating to the nasal and naso-pharyngeal diseases will be opened for discussion by Fellows of the Association. The medical profession is cordially invited to attend. The Secretary, Dr. R. S. Knode, Omaha, Nebraska, will furnish any information to physicians desiring to become members.

NEWS.

—The Thirty-second Sanitary Convention was held in Michigan, at Charleroix, August 14 and 15, 1890.

—Dr. J. Adams Allen, Dean of Rush College, died yesterday at his residence in Chicago, aged 65 years.

—Dr. Willis F. Westmoreland has been unanimously elected to the chair of Surgery in the Atlanta Medical College.

—It was stated on August 15 that smallpox was causing many deaths in the ranks of the Guatemalan army on the frontier of San Salvador.

—Surgeon-General John Moore, United States Army, was placed on the retired list August 16, 1890, by operation of law, on account of age.

—Dr. O. Sawyer, of Chicago, was shot and probably fatally wounded August 12 by J. Barton Sancher, during a fight growing out of domestic troubles.

—The thirteenth annual reunion of the Pennsylvania and Maryland Union Medical Association, will be held at Highland Park, York, Pa., August 28, 1890.

—Dr. W. M. L. Coplin and Dr. R. P. Robins were, on August 11, elected out-door physicians by the Board of Charities and Correction of Philadelphia.

—Dr. Thomas J. Morton, of Philadelphia, has made a strong complaint of extortion and bad management on the part of the Yellowstone Park Association.

—The *Northwestern Lancet*, August 1, 1890, says that a report comes from Omaha of two cases of opium poisoning in children by the use of "Piso's Cure for Consumption." Both children recovered.

—An epidemic of diphtheria, of a most malignant type, was reported from Chicago, in that portion of the Town of Lake known as the New City on August 15. The section is said to be in bad sanitary condition.

—Dr. Stevenson, of Adrian, Mich., who was attending the Tenth International Medical Congress, died suddenly in Berlin, August 13, 1890. His death was attributed to heart failure superinduced by morphine.

—According to the *Chemist and Druggist*, August 2, 1890, Mr. Thomas Beecham, manufacturer of the pills known by his name, makes nine million pills each working day, and spent last year over half a million dollars in advertising.

—In Philadelphia the Chief Milk Inspector, August 11, reported to the Board of Health that eight persons, whose names he gave, "continued to sell watered, skimmed and colored milk in violation of the act of Assembly after notification."

—It was reported from London, August 14, that John Ruskin, the famous writer and art critic, was nearing death. He was almost continuously delirious, and during these irresponsible moments he had attempted suicide with a razor. He had twice made this effort upon his life.

—At Giessen, July 28, a new monument of Justus Liebig was unveiled in presence of a large assembly. The statue is more than life size, and both sides of the base are adorned with two allegoric figures, representing "Science" and "Culture." The monument is in white marble, and will be counted among the most beautiful of Germany's works of art.

—It is reported from Birmingham, Ala., August 11, that a farmer living in Winston county awoke the morning before and found his wife and an eight-months-old babe dead in bed by his side. Their bodies were badly swollen and coiled in one corner of the bed was a moccasin snake. During the night the snake had crawled into the bed and had bitten Mrs. Keith and the child.

—The Homœopaths in London are raising funds for the erection of a new hospital. The cost of this undertaking is estimated at 30,000 pounds, towards which a friend, well known to the hospital, gives 10,000 pounds. Mr. Alma Tadema, the artist, two of the sons of the late John Bright, and a number of other well-known people are named in the donation list. Altogether close on 20,000 pounds has been promised so far.

—Manuel Garrutus (or Garutea), the young student from Mexico who was found suffering from leprosy in the boarding-house in New York, July 28, and was sent to North Brother Island, was taken from the hospital by his parents August 9, and started for home with them on a Pennsylvania train. It is said that no precautions were taken by the Board of Health to prevent the patient from coming in contact with passengers, as the Board holds that there is no contagion in leprosy.

OBITUARY.

ELIAS W. HOWARD, M. D.

On August 9, 1890, Dr. Elias W. Howard died at his home in Akron, Summit Co., Ohio, aged seventy-four years.

He had been a successful practitioner for fifty-two years, nearly all this time in Akron. He had been in failing health for the last six months, but had been confined to his bed only a day prior to his death. He had been connected with all important movements in the progress of the city and his loss will be universally felt throughout the State and county.

At the time of his death he belonged to the American Medical Association, the Ohio State Medical Society, the Northeastern Ohio Union, the Summit County Medical and Surgical Society and the American Association of Microscopists. H. C. T.

MEDICAL AND SURGICAL REPORTER

No. 1748. PHILADELPHIA, AUGUST 30, 1890. Vol. LXIII.—No. 9.

Clinical Lecture.

FEEDING AND TREATMENT OF DIARRHŒA OF INFANTS.

BY JOHN M. KEATING, M. D.,

PHYSICIAN TO THE HOWARD HOSPITAL, PHILADELPHIA.

REPORTED BY HERBERT M. CARPENTER, M. D.

I would call your attention to the fact that within the last few days the weather has changed from very warm to cold, and that it has had a great influence upon the character of the cases presented. The most satisfactory way of studying the disorders of children during the summer, especially in regard to feeding, is to study cases as they present themselves at a service of this kind. It represents private practice better than any other hospital service, and shows how absolutely ignorant mothers are in regard to their children and the great necessity of instruction in hygiene and dietetics.

Case 1. This child is fifteen months old. The mother brings it to us complaining of trouble with the bowels. The passages are light in color, sticky and slimy, and have a very offensive odor. She still nurses the child, besides giving it milk and oatmeal. It is restless and does not sleep well, but does not seem to suffer pain. This case is evidently one of intestinal catarrh, produced by overloading the intestinal tract and by the sudden change of temperature from excessive heat to cold. We will order this child first a dose of castor oil; then bismuth subnitrate, gr. iii, and salol, gr. ¼, every three hours; and advise the mother to stop giving it the breast, or only to give it at night and morning. Also to give it condensed milk, or one of the milk preparations.

Case 2. This child, thirteen months old, is on the breast but occasionally gets crackers and the like. She has had diarrhœa for several days. The stools are greenish and very thin, six passages yesterday. The child sleeps pretty well at night, but is very restless during the day. Her tongue is coated and she vomited this morning. We will give the child the following:

℞ Bismuthi subnitratis . . . . . gr. xxiv
Sodii salicylatis . . . . . gr. vi
Syrupi rhei aromatici . . . . . f℥i
Tincturæ cardamoni compositæ . . f℥ii
Aquæ menthæ piperitæ . . q. s. ad f℥iii

M. Sig. A dessertspoonful to be given three times a day.

If the passages are very watery and bad smelling the prescription may be given four times, and, if necessary, five times a day.

Case 3. This child is sixteen months old. The mother tells us its bowels are very bad, and it is sick at the stomach. The child is emaciated, its fontanelle is depressed and it looks tuberculous. The mother has been feeding it on table-food. The passages are very thin and dark green, and they smell very bad. It vomits everything it takes. Often the milk is not curdled. She has lost a great deal of flesh in the past week. She has no fever now and has no night-sweats. The family history is good, and the child was healthy until a few weeks ago. We will give the bismuth mixture before prescribed, with the following alterations. Instead of the compound tincture of cardamon give spiritus frumenti, about ten drops to the dose, and I would add pepsin, one-half grain to the dose. This should be given, a dessertspoonful half an hour before feeding, the object being to stop intestinal peristalsis as much as possible. The child should have fresh air. A ride on the steamer to Red Bank will help it. It should be bathed every day, and some warm cod-liver oil should be rubbed into the skin of its belly and a broad flannel binder should be worn. Instead of milk the mother may try some cream. Take half cream and half boiling

water, of which mixture a tablespoonful, with lime water, may be given every hour; or better still, some carefully peptonized milk.

Case 4. This baby is five weeks old. Its mother goes out to work, and so the care of the child falls on a neighbor, who feeds it during the mother's absence. She brings it to us this morning with the history of vomiting and diarrhœa. The movements are dark green and slimy, and have a sour smell. This is a case of intestinal catarrh brought on by improper feeding. The child is weak and feeble, and needs nourishment. I would put it on wine of pepsin, five drops in water to be given about five minutes before feeding, and I would give it a teaspoonful of condensed milk with fifteen teaspoonfuls of water. The water must be boiled before adding to the condensed milk. The baby should also be given a bath every day to keep it cool and clean.

We may now take up the consideration of diet. So much has recently been written about sterilized milk that to undertake a review of the subject would occupy too much time. Suffice it to say that, taking it for granted that cow's milk forms the best diet for an infant deprived of the breast, unfortunately it differs somewhat in essential matters from human milk and needs to be modified. Further, its exposure to impure air or the admixture with impure water, or certain changes which it undergoes after leaving the udder, often render it indigestible and even poisonous.

Now it has been found that if milk be subjected to boiling the germs of disease and the poisonous changes will be affected to such an extent as to render it harmless, provided it is at once given to the child or kept on ice, or put into an air-tight vessel. But boiling produces some chemical change in the milk, which causes it to disagree with some, to constipate others, or to acquire a flavor which renders it unpleasant to the taste. Nevertheless with the very poor and ignorant you should insist upon an infant's milk being boiled and kept in a covered vessel. But remember, boiling cow's milk does not of itself make it any less nutritious.

The process usually known as sterilization is the heating of milk to the boiling point or above it by means of a bath of boiling water or steam. To be effectual the temperature should be kept at 212° or over for at least an hour. The bottle should be hermetically sealed and put on ice, and opened only when it is to be used. Sterilization by this means does not seem to influence the milk as does boiling, but it is equally efficacious. Moreover, it certainly accomplishes more than boiling, because the curd of sterilized milk more closely resembles that of human milk than does boiled milk.

To sterilize milk properly requires some degree of intelligence. I believe that in all cities milk should be perfectly sterilized on a large scale and supplied in corked bottles, at reasonable rates, to the poor. When this is accomplished I am satisfied that the infant mortality in summer will be somewhat diminished. I say somewhat diminished, because ignorance, carelessness and stupidity will keep up a high mortality until they are counteracted by the education of mothers and the strict enforcement of the laws of hygiene by police authorities and Boards of Health. Our poor are not protected in any way, so far as their health is concerned. This is radically wrong, and I am often surprised to find how little influence so-called Health Boards have in a community. A Board of Health, either State or local, should have absolute control over all matters relating to the public and individual health and not alone quarantine, epidemics and cemeteries, but water, milk and food supply, drainage and the education of the masses in the principles of hygiene. The answers which were made to my questions by these mothers show how much ignorance we have to deal with, and how hard it is to combat. Our instructions to those who have the feeding of infants must be simple and thorough. Complicated formula will not answer.

Dr. Rotch's excellent article in the *Cyclopædia of Diseases of Children*, gives admirable instructions for feeding an infant, and his formula is the best I know of, if the mothers are intelligent enough to carry it out.

For some time I have been using the following amongst the poor and find it an excellent diet for a child from four to six months old. A six-ounce bottle is filled one-half with ordinary cream, one-half with filtered water, to which is added a level teaspoonful of white granulated sugar and a small pinch of salt. This should be "sterilized" for an hour. If the mother cannot do this the water should be *boiling* when added to the cream, the bottle to be corked with a plug of absorbent cotton and wrapped in flannel and kept so for one hour and then

given to the child. For a younger child less cream and more water; for an older child the reverse. If the child smells sour after this mixture, baking soda should be added instead of sugar. Remember that the "lime water" of drug stores is made with filtered water only—not distilled or boiled water—therefore lime water should not be added to the milk after it has been sterilized; also bear in mind that if you add "lime water" to the mixture before sterilizing, the temperature of 212° will precipitate the lime of the lime water. Therefore, if you desire to add lime to your mixture, I think the lacto-phosphate, a grain or two to a six-ounce bottle, will do better. This thought has led me to use the following formula, which I published in the *Medical News*, June 5, 1886:

℞	Sugar of milk	twenty-six grams
	Calcis lactophos.	one-sixteenth gram
	Calcis carb.	one twelfth gram
	Sodii bicarb.	one-half gram
	Potass. bicarb.	one-twelfth gram
	Sodii chloridi	one sixth gram

This, in the form of compressed tablets, or a powder, can be added to a bottle of milk, cream and water, or of cream and water, and then the whole sterilized, making a diet which large experience has shown to be a valuable one. Or it may be used as follows: Take three ounces of filtered water, one ounce of milk, and an ounce of cream; to this add three tablets and sterilize. Give to child at about the temperature of the body. For a child two or three months old prepare the bottle as follows: Take two ounces of filtered water, two ounces of good fresh milk, one ounce of cream, add four tablets and sterilize. With the very poor, if it cannot be sterilized, boiling water may be added instead of filtered, as stated above.

—Naphthalin is one of the most perfect antiseptics and germicides. One crystal in four ounces of urine will stay the conversion of urea into ammonium carbonate for days and even weeks. Its great insolubility makes it especially desirable in cases of typhoid fever. To obtain it in impalpable powder, which is the preferable form, it may be dissolved in alcohol and then precipitated by water. It spite of its pronounced odor, it is almost tasteless. It may be given in capsules. Small doses, perhaps 2 grains, given at frequent intervals, completely deodorize the fecal discharges.

COMMUNICATIONS.

THE MEDICAL PROFESSION AND THE PEOPLE.[1]

BY W. F. BREAKY, M. D.,
ANN ARBOR, MICH.

The State of Michigan pursues a wise and liberal policy in maintaining its institutions of education, beneficence and charity. It provides asylums for its unfortunate insane, its blind and deaf. Not only its own sons and daughters find every opportunity for study, from its public schools to the University, but it invites, with slight discrimination as to cost, those from the whole world. It offers a course for teachers in its Normal School and for farmers in its agricultural college, even making experiments to reclaim and make productive the waste lands of the State and for the destruction of insects hurtful to crops. It offers a bounty for the destruction of sparrows. It provides for the restriction of contagious disease in man and beast, even authorizing the killing of infected animals. It requires the inspection of steam boilers and of buildings. But does the State deal as wisely with its physicians and as humanely with its people who need a physician? The Department of Medicine and Surgery in its great University and its other medical colleges, in common with the better medical schools of the country, are endeavoring to meet the demands of the profession for higher attainments, lengthened course of study and better educated physicians. A student must now attend not less than three years in all the better colleges and in the University four years.

But while the State through its University requires this, to secure a diploma, what inducement does it offer the student to do even this much before beginning to practice medicine? Or what protection does it offer him after he has begun, more than it offers to the greatest ignoramus or quack who was practicing when its "Act to promote Public Health" went into effect in 1883, or to any man who can show a diploma from any college authorized to grant one, though he may not have spent six months in college? So far as the State is concerned it invests one with as much authority to practice as the

[1] Part of the Annual Address on Practice of Medicine at the 25th annual meeting of the Michigan State Medical Society.

other. Practically any man can practice medicine, the required registration being only a record of information and of so little value as to be not worth enforcing. The druggist and his clerk who dispense the prescriptions of the physician must pass an examination to determine their qualifications. The attorney must pass a satisfactory examination and be admitted to the bar before he can practice law. Does the State protect the ignorant man and his family from the charlatan by the application of tests that would determine the fitness of the practitioner to have the care of human life? No, it will protect his cattle, even to the extent of killing his neighbors, which may be infected, though it will not even kill the diseased brutes without educated authority. But the helpless child of the ignorant parent may become the victim of the more than ignorant pretender who is "registered." Michigan has become noted as the dumping-ground of quacks from other States and countries.[1] The national government quarantines against contagion and prohibits immigration of criminals and paupers. But this great State, noted throughout the civilized world for its excellent educational system, crowned by its famed University, has also the unenviable distinction of having a larger proportion of medical quacks to its population than almost any other of its sister States. Our national government protects its soldiers and sailors, by requiring candidates for its medical corps to be not only graduates from a reputable medical school, but to pass a rigid examination. Life insurance companies that expect to pay their losses do not take risks on lives until the applicants have been thoroughly examined by competent physicians.

The United States Supreme Court last year in a case appealed from the Supreme Court of West Virginia rendered the following important decision in regard to the validity of statutes regulating the practice of medicine. "The power of the State to provide for the general welfare of its people authorizes it to prescribe all such regulations as may be necessary to secure the people against the consequences of ignorance and incapacity as well as for deception and fraud. One means to secure this end is the method adopted by the State of West Virginia. If the means adopted are appropriate to the calling or profession and obtainable by reasonable study or application, no objection to their validity can be raised."

The *New York Christian Advocate*, whose editor is known as a man of great scientific and literary ability and who has contributed, personally and through his able paper, so effectually to expose the fallacies and frauds of spiritualism, clairvoyance and other delusions, says: "The Grand Jury of Onondaga County, New York, recently made a presentment against Christian scientists and Faith-cure healers. After stating that there are many persons engaged in treating diseases 'who have in no manner complied with the statutes of this State,' they add: *Whereas*, By such practice the health and welfare of our community are greatly impaired, be it therefore *Resolved*, That it is the opinion of the Grand Jury that the District Attorney of this county owes it as a duty to the people to request the aid of the medical societies of the city and county in searching out all such illegal practitioners as the laws of the State provide."

The State of Illinois has a Medical Practice Act, requiring of medical practitioners evidence of competency, which it has been estimated compelled over three thousand incompetent, dishonest or fraudulent practitioners to quit their business or leave the State. Many of them came to Michigan and are still preying upon its people. Of this act, ex-Governor Hamilton, of Illinois, said: "The medical practice act was primarily a police regulation. Incidentally it was educational. Primarily the purpose of the law was to rid the State of incompetent, ignorant and dangerous mountebanks and quacks who are carrying on a fraudulent business by all manner of deceit, in a pretended practice of medicine among the people. It was to protect the lives, the health, the morals and the property of the people of the State from the shameless depredations of swindlers and adventurers, who by all manner of false pretensions and deceptive promises were taking advantage of the misfortunes of the people in sickness and ailments, of all kinds, to still further injure their health, endanger their lives and rob them of their money."

This vivid picture—in all but having the law—might apply with great force to Michigan. Michigan should have a law requiring a rigid examination of all who propose to practice medicine, by a competent Board of

[1] See address by President Western Academy of Homœopathy, Chicago. Michigan "Banner State" for Homœopathy.

Examiners, independent of teachers of medicine or colleges conferring degrees.

Our lay friends may reasonably ask, what should the physician do to promote medical science? I can only briefly allude to some of the many things he can do. First, be it taken for granted that he should personify the highest ideal of a practitioner of rational medicine of which he is capable. It is assumed that he will have the natural and acquired qualifications and the ability to put in practice what he knows. Unfortunately the fittest do not all survive. Many sensitive, unappreciated men withdraw, who are a loss; and some remain who could be spared. But, on the whole, the large proportion of those who having begun the practice of medicine become impatient to achieve fame or wealth without work, or are unwilling to labor and to wait and drop from the ranks, greatly promote medicine by leaving it. He will best serve the science of medicine who best serves his patients by faithfulness to duty at his post, whether in a city or in a country cross roads. If every physician does this the whole profession will be raised.

A higher average in medicine is more needed than conspicuous instances of individual distinction and achievement. The laity will estimate us as we estimate ourselves. The nobility of our profession in every community will be just in proportion as the practitioners in that community ennoble it. It is not simply to relieve suffering, allay pain, stay pestilence, carry cheer, light and hope where was distress and gloom, maintain confidence and protect innocence; but to do any or all of this without magnifying our office is but what is expected and a part of our duty. He must educate the people by precept and example in correct ideas of hygienic and preventive medicine. He must disabuse the minds of the ignorant and thoughtless of popular errors concerning the practice of medicine.

The practitioner who permits himself, without protest, to be known or addressed as an "allopathic doctor," among intelligent people, seems to me not only consents to, but becomes accessory to a hurtful deception on the public and an injury to the profession he should honor, and loses an opportunity to enlighten the ignorant and to teach that rational medicine is not a pathy, and that those who practice it are not "pathists" but physicians, at liberty to use any means, however acquired, in any quantity, by any method that will cure or relieve his patients, and with no commercial interests in remedies.

These may be old truths, but they are fundamental and cannot be repeated too often, if we are to correct popular misconceptions of medical practice. We cannot complain that the non-medical public fails to recognize or understand these facts, if we fail to announce and enforce them in every proper way. The broad name of physician is comprehensive enough to cover everything useful in the practice of medicine. Few among the long list of so-called doctors who have various prefixes and annexes and tags of various kinds to their names, have the courage to announce their professed titles or to adhere to their professed methods. Even the more intelligent of the homœopaths, who have just completed a century of Hahnemannic dynamico-mystic medicine, show restraint, and are becoming restive and divided under their name, which has become the synonym of little. The leading homœopathic journal says that "as Hahnemann was responsible for the names *homœopathic* and *allopathic* which have divided the profession into sects, it would be proper for his followers and representatives to withdraw them, if there is no further occasion for their perpetuation."

At a meeting of the American Institute of Homœopathy, held at Lake Minnetonka, Minnesota, as described in an editorial in the MEDICAL AND SURGICAL REPORTER, August 10, 1889, a resolution was offered requiring all members of the Institute to be believers in and practitioners of homœopathy: in fact, to practice what they profess. This resolution was defeated by a vote of seventy-six to thirty-four. In the city of Philadelphia a few years ago the entire body of visiting physicians to one of the homœopathic hospitals revolted because the Board of Directors (non-medical people who believed there was a science of homœopathy) wanted to restrict the said physicians to the use of purely homœopathic drugs in the service of the hospital. One of the foremost of the so-called homœopathic practitioners in New York City is no doubt correct in saying there is to-day no exclusively homœopathic practitioner in New York City. In the city of Ann Arbor there are a half dozen or more professed homœopathic practitioners—some of them paid by the State to teach this narrow sectarianism—no one of whom,

to my knowledge, announces himself as a homœopath to the public by newspaper advertisement or office sign, or who practices according to the homœopathic laws.

During the hundred years since Hahnemann announced his mystic doctrine, homœopathy has produced no man of scientific note, nor any book of scientific value, while its leaders lament that its followers neglect their text-books and journals for standard medical literature.[1]

Within this period scientific medicine has leaped into new life and made wonderful progress in all departments of learning. These remarkable achievements presage that "the age of dogmas, mysticism and speculation is passed and that medical science, broad and progressive, cannot be compressed into the narrow confines of a creed."[2]

From the practitioner's standpoint we need a better understanding and use of the means we possess, quite as much as the discovery or invention of new means. We need not discourage exploration and research, but to urge as a basis for new work a thorough knowledge of the old. The test of value of remedies is the success resulting. The most brilliant theories are not always practicable. New agents and remedies, if useful, have to be adapted and adjusted to existing and established forms.

History repeats itself in medicine as in other affairs of life, and the intelligent physician will not fail to profit himself by looking backwards, while he surveys the horizon in front and on right and left, in keeping abreast of the times. For him all contributors work. His function is the application of remedies; but they are not always material. To his patients he is counselor and guide. He mixes common sense; he does not advise the patient who can hardly keep the wolf from the door at home, to try the waters of Germany or the air of Colorado or Florida.

The practice of medicine has become so vast, through increased knowledge of function, disease and of procedures of treatment, that no person can become expert in all departments, and many practitioners of choice limit themselves to a portion of the field. But the general practitioner must be considered the typical family physician. And as he may have the first care of such a variety of cases it is important that he should be qualified and ready to give proper treatment to any case that he may be called upon to attend. He may not be familiar with all the minute details of pathological changes, or with all the special appliances in the treatment of rarer forms of disease, a knowledge of which is acquired only by years of extensive study; but he should be able promptly to recognize the cases which from the first, or at any period of their history, present grave features calling for special treatment, or facilities in management, and call in the aid of, or turn them over to, his brother, who, by limiting his work to the smaller field, is more conversant with the details. There is no good reason why every physician, competent to engage in general practice, should not acquire an efficient familiarity with instruments of precision in diagnosis, and be well supplied for the treatment of emergencies. It requires no more or different skill or learning to use an ophthalmoscope or a microscope, and to interpret what is seen through it, than to use a stethoscope and to interpret what is heard through it.

The field of every general practitioner furnishes him with the clinic of a hospital always varied and new. The most important case may occur in the remotest hamlet. The obscurest frontier doctor may discover facts of the greatest interest and value, and, through such an organization as this, bring them within the reach of the profession at large. It will be largely the fault of the general practitioner himself if he permits his title, his standing or his influence to grow less, or the specialists to encroach unduly on his preserves. He will not be likely to disparage the work of the true specialist who limits himself to his chosen field. There is ample room and work for both; and it will generally be due to some abuse of the relation, if the specialist does not have the good-will and support of the general practitioner.

A great surgeon—Frank Hamilton—said: "All honor, then, to the general practitioner." No one who follows the healing art so nearly deserves the title of physician. For him anatomists dissect, physiologists experiment and chemists analyze; for him pathologists investigate, and therapeutics and pharmacy contribute. There is the work to prepare, the material, and agencies to his hand. His to combine, to utilize, to

[1] Address of President Western Academy of Homœopathy.

[2] "Homœopathic and Medical Progress During Present Century." Address of Dr. Nathan Jacobson.

apply. He creates the demand and constitutes the market for which teachers instruct and authors write.

Physicians can promote medical science by cultivating more fraternal relations with each other. The average doctor is too often in a condition of chronic mental and professional hyperæsthesia; hypersensitive to criticism himself and too ready to return it in kind; he is often surprised to find under the thin cuticle of his brother a kinder man than he supposed, and he becomes desirous to establish the same character for himself. Attendance upon and contributions to medical societies, with accurate reports of cases, whether successes or failures, will do much to acquaint physicians with each other, and bring out their noted social qualities, which they too rarely practice upon each other. More frequent professional consultations, fairly conducted, will promote medical science among people and physicians. The suggestion of a consultation should be no reflection or disparagement upon the attending physician. Indeed he should be quick to anticipate the thought. Our friends, the lawyers, are wiser in their business management. It is rare to have a simple case in care of a single attorney; while one of much moment may retain and occupy half a dozen.

It is a good maxim to speak well of the dead; but it seems still better as far as possible to speak well of the living. I have heard of a distinguished medical gentleman, whose enthusiasm in pathology is so great that his keenest interest in a case only becomes awakened when the patient is dead. But we need not make the expression of our friendship wholly *post-mortem*. I saw within the year the report of a special meeting of a society of physicians in our State, gathered to pay a tribute to the memory and worth of one of their members who had gone the way of earth. And as I read the earnest, heartfelt words of one and another who spoke of his many good qualities of head and heart, of his industry and energy even in ill-health, of his kindness to the poor and faithfulness to patients and to all obligations, of his interest in the welfare of medicine, of his attendance at the society meetings, I thought of how much comfort it would have given the subject of all these kind words could he have heard them while he lived.

The physician can have no better guide in professional life nor higher precepts than the much maligned code presents. The profession is looked to as the conservator of medical morals. Its code of ethics is not more advantageous to the physician than to the public. In the majority of cases it is the violator of the code who violates the code of gentlemanly and honorable conduct. Its best provisions guard the patient, the family and the public. No more exalted rule of conduct is found outside the teaching of the Great Physician than its precepts afford.

Finally, my brethren and friends of the laity, interested in the development and triumph of science, let us be of good cheer. One's own horizon is near, and we see but a short distance; but while the sun in our sky is clouded it may be bright and cheery with hope and promise from a thousand other points. Each of us will find an abundant opportunity to influence public opinion in support of scientific medicine, preventive or curative, and in so doing to advance civilization and the interest of humanity. With the present progress in medicine it is not too much to expect that the physician of the future, by the cultivation of bacteriology and allied sciences, will eradicate the whole range of communicable diseases from the earth. Then will the victory of medical science be acknowledged, and the efforts of the physician, aided by the people and the press, will achieve the grand result.

SIMPLE MODE OF RELIEVING SPASMODIC STRICTURE.

BY C. L. DODGE, M. D.,

KINGSTON, N. Y.

The existence of spasmodic stricture of the urethra has been denied by some writers, but it is hardly necessary to say that this opinion is erroneous. Argument is superfluous.

The causes of spasmodic stricture are many and varied. Among the more prominent are the presence of stone in the bladder or urethra; long retention of urine; immoderate sexual intercourse; the free use of alcoholic stimulants; horseback exercise; exposure to sudden changes of temperature, and mental emotion. Examples of spasmodic stricture are also met with as the result of irritation about the rectum from worms, hemorrhoids, fissure of the anus or

fecal accumulation, or by operations upon this part especially the ligature of piles.

The inability to urinate lasting several seconds—which every one has experienced when in momentary fear of discovery—is dependent upon spasm pure and simple as the result of reflex nervous action.

In the following case irritation of the rectum consequent upon the use of a glycerine suppository appeared to be the exciting cause.

On February 18, I was hastily summoned to attend Mr. C., an active professional man thirty-five years old, married. His family history was excellent and he had always been healthy. He had no history of gonorrhœa and had never suffered with stricture or any disease of the genito-urinary organs.

He stated that he had been suffering for a day or two from constipation and had used a glycerine suppository about 2 P. M. This was retained for a few minutes, but caused a great deal of irritation of the rectum; this was followed by a copious evacuation of the bowels. Considerable irritation remained, however, causing severe tenesmus and smarting for about half an hour when a desire to urinate was felt, but the man found, to his dismay, that he was unable to empty his bladder. After repeated efforts to void his urine, without success, he sent for me. I found him suffering severe pain above the pubes, with intense vesical tenesmus. I suggested the use of a catheter, but the patient was very nervous and wished me to try other means first. I then directed him to immerse the penis in a cup of water as hot as could be borne, in the hope that this might cause the spasm to relax; but it proved unavailing. I then gave him one-quarter grain of morphine by the mouth. Shortly after taking the morphine and before its antispasmodic effects could have been produced—for he had just made another attempt to urinate—I asked him to come into the bath-room and to try once more to void his urine while I turned on the faucet of the wash basin and allowed a gentle stream to run. In less than a minute the spasm relaxed and he passed over a pint of limpid urine. He has had no return of the trouble since.

This old method—which is so simple and effective—is perhaps not familiar to all the readers of the REPORTER, and so I venture to recommend it to those who are not familiar with it.

CHOREA.[1]

BY F. A. BUTLER, B. S., M. D.,
HARVARD, NEB.

Chorea was sketched for the first time, in the writings of the English father of medicine, Sydenham, as a sort of convulsion that attacks boys and girls from the tenth year, until they have obtained their growth, commonly known in this country as St. Vitus' dance, the dance of St. Guy in France and the dance of St. Veit in Germany. This is a disease too well known by the medical profession for me to undertake to describe it by picturing in glowing terms anything essentially new. It is a well-known fact that chorea may come on at a much earlier period than the tenth year of age; perhaps the greatest number of cases we are called upon to prescribe for are from the age of eight to twelve years. At the same time we have all seen cases that are much younger or older than this period. Chorea is no doubt a neuropathic disease. The movements are the most characteristic feature of the disease; they seem to consist in a series of clonic spasms, unattended by pain, and resemble not infrequently those of a child out humor; and are usually more perceptible upon one side of the body than the other, at first not infrequently being confined to one side.

The movements seem to be always increased by any attempt to exercise the will, or under any emotional excitement, but usually cease when sleep is induced. At times some of the movements of the face are very characteristic, want of muscular power is shown by the readiness by which the patient becomes tired, sometimes paralysis seems to be a marked feature, and as a rule the muscles most affected by the movements are those which are most paralyzed. It is apparent from my observation, that not infrequently chorea and paralysis are closely allied. For in paralysis, properly so-called, the paralyzed parts are affected by movements which without question are not marked by many variations of movements, from those of chorea. There is often a feeling of numbness, and Trousseau says that numbness, when present, is usually accompanied by tingling. The vacancy of expression resulting from the semi-

[1] Read before the Nebraska State Medidal Society, May, 1890.

paralyzed condition, may in some extremes suggest the idea of idiocy, but this expression should not be taken as a gauge by which to measure the mental condition of the patient, at the same time there may be more or less dulness and listlessness than fretfulness.

The patients who suffer from chorea, the authorities tell us, are very impressible and emotional, and quite liable to derangements of the nervous system. Not infrequently in tracing out the history of a patient with chorea, there were spasms during teething and seemingly a predisposition to other disorders of the nervous system, frequently the mother had at or before the time of puberty an attack of some one of the following disorders: Spinal disease so-called, hysteria, epilepsy or chorea, and insanity can sometimes be traced in the family history.

Chorea is sometimes symptomatic, sometimes idiopathic. Among the many causes to be enumerated, the one I am desirous of calling attention to, is fright; a frequent cause where the tendency and predisposition exist. Again, some authorities state that the causes of chorea and rheumatism are closely allied, if not identical. Chorea seems to be a disease common among the poor and ill-nourished; rare, comparatively speaking, among the rich and well-favored. Does not the same hold good for rheumatism, in being more prevalent in a cold, damp climate than in a warm, dry climate? The season of the year does not seem to influence the development of chorea very much; however, the cases I have met with in Nebraska occurred mostly in the winter and spring of the year. It is my opinion that sex has somewhat a controlling influence. In summing up cases of chorea, it will be found that the disease affects more than twice as many girls as boys. This may be accounted for by the fact that the emotions are stronger in girls, since in them the nervous system predominates, the muscular power being weaker than in boys. This is a partial explanation of the fact at least, which statistics fully establish. While not desirous of criticising our public-school system in particular, it must not, however, be lost sight of, that the severe discipline and the arduous work to which many of the pupils are subjected, in pursuing too many studies at once, thus increasing the strength of the emotions, by an over-taxed mental strain, weakening the control of the will over the muscles, with the peculiar changes occurring in the female at or near the period of puberty, is another reason for the excess of the female cases. On the other hand, the changes in the male at puberty do not appear to increase the liability to the disease, and cases in the male after the twelfth year of age are comparatively rare. According to Smith anemia is one of the most common predisposing causes, exhibiting itself by pallor of the countenance and other characteristic signs.

The peculiar neuropathic state referred to already is no doubt largely dependent upon impoverishment of the blood, and in some instances entirely due to it. Of course there might be enumerated many other ingenuous theories regarding the prime causes of chorea, based on a hypothesis far more theoretical than practical. Further and more scientific observations are necessary to elucidate how much truth there is in some of the theories produced upon this subject. These theories are too numerous and extended for me to undertake to reproduce them in this paper. Some of the early writers record epidemics of chorea occurring in the Middle Ages and spreading through villages, but in modern times it is rare that the disease originates in epidemic form; occasional examples, however, have been recorded. We are unable to find any account of cases spreading by imitation in modern times that did not seem to belong to the same form of chorea traceable to the same cause, where a number of children in the same family were afflicted at the same time, or instances where an epidemic broke out among the pupils of a boarding-school, in both instances the cause could no doubt be traced to over-taxed mental strain, food of an insufficient quantity or unwholesome in quality, or to both these causes combined, causing a disintegration of the nervous forces, and producing anemia; which is in my mind one of the most potent factors in the production of chorea. In the recorded epidemics in the Middle Ages, classified as chorea major, the symptoms differ so materially from those of chorea minor, that it is a question whether it should have the same generic term. It is a curious and interesting disease in its psychical and pathological aspect, being rare in modern times; knowledge of it is of little practical importance, and instead of being classed as chorea major, a more appropriate classification would have been religious passion or ecstatic monomania, due to excitement of a vague religious character.

During the past year I have been called

upon to prescribe for about a dozen cases of chorea in children, ranging from the age of six to fifteen years. I desire to give in brief the history of one of the worst cases I have seen in Nebraska, with the treatment used in this case, which was about the same, with some variations, as used in the other cases, and was successful in controlling the disease in about five or six weeks' time.

On Saturday, February 15, I was called to Stockham, Hamilton Co., Neb., to see Maggie W., a girl ten years old. On arriving I found a thin, anemic, badly nourished child, who, the parents stated, had been afflicted with rheumatism a month or so previous. The mother had noticed that during the last few days the child had become very restless, which restlessness had become very much aggravated during the previous night, the tossings and jerkings becoming general. Standing or walking was impossible, the child had lost the power of articulation. She had an occasional spell of crying and weeping, and her features were continually being twisted into the oddest grimaces. When asleep her face seemed wanting in expression, indicating the idea of silliness, and becoming so changed that she was hardly recognizable by friends as the bright-faced, quick-witted, intelligent school-girl of a short time previous. The saliva dribbled from the mouth, and food, which she could only get by being fed, could scarcely be kept from falling out of the mouth, mastication and swallowing being a matter of much difficulty. The tongue was unsteady, the pupils were dilated and sluggish, the pulse was weak and quick, the hands were cold and moist. She had not slept any, only at short intervals, for two days; her bowels were constipated, her urine scanty and high-colored, soon becoming offensive on standing. In examining the chest with the stethoscope, an anemic murmur was perceptible over the region of the heart. On account of the distance, I was only able to see this case about once in five days, after the second visit.

Nourishing food of a liquid form was advised to be given frequently. A tablespoonful of port wine three times daily, and an alcoholic bath once each day, which, with the following prescription, constituted the treatment.

No. 1.

℞ Syr. ferri iodidi . . . . . f℥ii
Liq. potas. arsenit. . . . . f℥iiss
Syr. simp. q. s. ad . . . . . f℥iv
M. Sig. One teaspoonful every six hours.

No. 2.

℞ Ext. scutellariæ fld. . . . . f℥i
Tr. digitalis . . . . . ℥i
Ext. cascaræ sagr. fl. . . . . f℥iv
Syr. simp. q. s. ad . . . . . f℥iv
M. Sig. One teaspoonful every six hours.

One teaspoonful of each of the above was given alternately every three hours.

I visited this case three days after the first visit, but found no material change excepting the bowels were well regulated, and the child slept better, and had a greater disposition to take nourishment. The treatment was continued with some alterations. On making inquiry regarding the family history, the mother said she had had an attack of "spinal complaint" that had lasted about a year, at the time of puberty, and was very susceptible to sudden emotional changes, could shed tears one moment and laugh the next. I visited the patient about every five days for five weeks. Improvement soon became apparent, the power of articulation returned about the middle of the third week, at the same time she had gained sufficient strength to stand and take a few steps with assistance. From this time on improvement was rapid; at the end of the fifth week all traces of any involuntary uncontrollable movements had ceased. The compound syrup of hypophosphites, one drachm after each meal, was now instituted in place of the treatment that had been followed.

Recovery was complete, satisfactory, and I believe, permanent.

INFANTILE DIARRHŒA.[1]

BY C. A. GILL, M. D.,
STOUGHTON, WIS.

The subject of infantile diarrhœa is one which should engage our most serious consideration, from the fact that it is one of the most frequent and most fatal of infantile maladies. The diarrhœa is but a symptom of the disease characterized by frequent and fluid stools. The most common cause of this is improper feeding, either in quantity, quality or frequency. Heat is an important factor in the production of this disease, as fermentation and decomposition of organic matter take place, generating poisonous

[1] Read before the Central Wisconsin Medical Society, June, 1890.

matters which act deleteriously on the sensitive organisms of young children; some go so far to assert that it is really a heat-stroke acting on the nerve centre, producing a vaso-motor paralysis of the intestines, and that as a result congestion and diarrhœa follow. Be that as it may, we know that heat plays a very important part in its causation. Other causes are cold, intestinal worms, dentition, etc. But I believe that if the quantity, quality and frequency of administration of the food were regulated and the infant were given cool water, there would be comparatively few cases of this disease. The system of these little patients is debilitated by heat and they do not require nearly as much nourishment as in the cooler months, and yet the mother, solicitous for the welfare of her babe, hearing it cry and supposing it to be hungry or wishing to quiet it, feeds it more, still further burdening its already overtaxed digestive powers. We can readily understand how, when food is introduced into the system under the condition presented by these little ones, with their blood-vessels depleted of their water, the fluid portion of the food would be rapidly absorbed, leaving a hard, indigestible mass to ferment and irritate the bowels.

In regard to treatment of infantile diarrhœa: first and foremost, one should withhold all milk for from twenty-four to thirty-six hours; and plenty of cool water should be given in small quantities and at short intervals; and, for nourishment, only barley water. At the end of this time I have usually found a great improvement in all the symptoms, and I then commence and give a preparation composed of one pint of milk, one-half a pint of barley water and one-half a pint of lime water, with a little sugar. I also give a little beef juice, three or four times daily. If this be given cool, it is retained on the stomach nicely and is certainly very nourishing. Proprietary foods I discard entirely, as in this mercenary age I have not sufficient confidence in their being prepared as represented.

In regard to medicinal treatment, I use bismuth almost entirely, usually combining it with chalk mixture. It seems to me that irrigation of the colon with warm water is not employed as much as it should be. I have used it in a few instances, using a fountain syringe with a soft rubber catheter attached, and passing it up for twelve or fourteen inches into the colon, using a pint of boiled water with a little bicarbonate of soda. Such treatment seems to be called for when we recollect that in this disease the greatest amount of pathological change is in the large intestine. Further, a sore, irritable bowel is amenable to, in principle, the same treatment as any other part of the body similarly affected; and if we cannot, in the bowel, secure absolute cleanliness, we should endeavor to approach it as near as possible.

The little ones usually have a high temperature, and to reduce this I use the bath, commencing with water at 105° and gradually cooling it down to 75°. To one who has never employed this for these cases, it is surprising and gratifying to observe the quieting, soothing effect it has. In one case, which I had this summer, in a babe three months old, with a temperature of 104°, I immediately put the patient in the bath; and in half an hour after, when taken out, the temperature was 101°, while before it the child was restless and crying. It now lay quietly in its mother's arms, smiling. It is a good plan to always take the temperature of these patients in the rectum, as very often the skin will be cool when the temperature in the rectum will be above normal.

Another important point is to endeavor to have these little patients taken into the open air as much as possible; but at the same time to have their bowels protected by a flannel roller. After the more acute symptoms have subsided, I find a solution of nitrate of iron acts beneficially, as infants with diarrhœa are usually anemic and require some blood tonic, and as this preparation is astringent it fulfils the indications.

To recapitulate then, I would say the treatment of infantile diarrhœa may be described as follows:

1. Withdraw all milk for from twenty-four to thirty-six hours.
2. Regulate the quantity and quality of the food and the frequency of giving it.
3. Give plenty of cool water.
4. Reduce the temperature with the bath.
5. Give medicines of an antiseptic and astringent character and stimulants as needed.
6. Wash out the colon two or three times a day.

—It is said that in London opium smoking is practiced under the direction of a physician, who gives directions as to the preparation of the drug and the technique of its smoking.

REPORTS OF CLINICS.

TUNG CHOW PRESBYTERIAN HOSPITAL, TUNG CHOW FU, CHINA.

SERVICE OF DR. ROBERT COLTMAN, JR.

Leprosy.

This man, 27 years old, presents himself for a numbness of the extremities which he says began gradually six months ago. He is a farmer, and lives ten miles from here in the country. You will notice the hair of his eyebrows has dropped out, and that his forehead is becoming slightly ridged and a good deal discolored with reddish brown elevations—evidently a thickening of the integument and superficial cellular tissue. He has no specific history. His father, mother and a brother are all living and well. He suffers no pain anywhere; eats well and sleeps well, but has a sense of lassitude which, with the numbness, prevents his doing his customary work. This is a case of leprosy in its earlier stage. How this man contracted it is a mystery. He says there has never been a case before in his family or village, but that there are two cases in a village a mile off. Yet when we see how lepers go at large all over these eighteen provinces of China, we wonder that there is not more of this dreaded disease than we find to exist.

What can we do for him? A good deal perhaps. Sometimes in the early stages a tonic and alterative treatment will long delay the later manifestations during which so much deformity occurs. Chaulmoogra oil was at one time boasted of as a specific in this disease; but it soon fell into disuse, and we now scarcely ever hear of it. It doubtless has its use in a limited field, but being overpraised, too much was expected of it, and its users being disappointed grew disgusted and abandoned it. The iodides and chalybeates offer the most certain relief, and I shall place this man upon the syrupus ferri iodides, gtt. xx, three times daily, and tell him to dilute it well with water, and take immediately after eating.

It occurs to me that the great powers of the earth, such as Russia, England, United States, France, etc., are derelict in their duty that they do not remonstrate with the Emperor of China on the subject of leprosy, as it is one that immediately concerns not only this empire but the world at large. What good does it do to try and suppress leprosy and stamp it out when the most populous country on the globe allows such of its subjects as have the disease to enjoy perfect liberty, handling the coins in common circulation with their mutilated fingers, eating and drinking from vessels at public inns, and in fact having not the slightest restriction put upon them.

Ulcer of the Cornea.

This patient, 32 years old, is a soldier, and has been coming regularly for a number of days to be treated for ulcer of the cornea. For the first few days he had a few drops of a nitrate of silver solution, strength a quarter grain to a fluid ounce of water, dropped into the eye and a bandage applied. Contrary to expectations, he made no improvement, and a more careful examination revealed a little cluster of hard, rough granulations on the upper lid just over the site of the ulcer when the lid is closed. These I curetted two days ago, and then touched with a crystal of lead acetate, wiping off the lid well with absorbent cotton before allowing it to close. To-day the man is much improved, and the ulcer is becoming more shallow and is evidently healing. He suffers very little pain, which is unusual. We shall go back again to our silver solution and bandage, and I think a week or ten days will find our patient entirely well.

Dropsy from Bright's Disease.

This man, 41 years old, is dissatisfied with my treatment. He says my predecessor cured him last year in a few days, and that he has been coming to me several weeks and is little if any better. This is too true, and what is worse is that he will, I am afraid, be more than ever inclined to think I am a poor physician later on, as his case will probably go from bad to worse. Last year he came with a dropsy such as you see now, and my predecessor, Dr. Neal, diagnosticated his case correctly as Bright's disease (though the form is not given in the record) and placed him on drastic cathartic treatment which, as the man says, cured him at once. His dropsy disappeared and he was able to go to work again. A little over a month ago he began swelling again and soon came to us for relief. At that time his limbs, abdomen and face were all swollen, and the skin pitted on slight pressure. His urine contained more albumin than I have ever met with before. It was almost solid with

albumin and tube-casts were also abundant. I gave him compound jalap powder in drachm doses, three times daily, with but little effect. Two weeks ago I placed him on infusion of buchu, a wineglassful four times daily, and a purge every other day. Since then his dropsy has lessened somewhat, so that now his face is free from it and the abdomen is less swollen than formerly. But his limbs remain of immense size and his urine is still loaded with albumin. I regard his improvement as only temporary, and expect a complication will soon come on and terminate his case. It is impossible for him to live on a milk diet or even to obtain milk at all, as he is a day laborer, and milk would be too dear for him to purchase. He suffers no pain, but occasionally has heavy headaches. He always feels better after a purge. I shall continue the buchu, and each night order him to take one drachm of compound jalap powder.

Leg Ulcer.

This boy, 18 years old, has a large, irregular ulceration of the right lower leg. The ulcer is foul and discharging a thin, offensive pus, which forms crusts wherever it flows. The margins are dark blue and unhealthy looking, as well as swollen and dirty. It seems to me that soap and water applied three times daily would do a great deal without any further treatment, but we can probably do more by proper medication. The boy's blood is in bad condition, and red-blood corpuscles seem to be scarce. Therefore we shall give him a pill containing quiniæ sulphates, gr. i, and ferri redacti, gr. ii, three times daily, and apply locally an ointment of zinci oxidi, hydrargi ammoniati and plumbi acetatis, made up with cosmoline. The formula is about the same as Fox's eczema ointment. For all classes and conditions of ulcers, I have found this ointment to give universal satisfaction and I use more of it than of all other ointments put together—sulphur ointment alone excepted.

Psoriasis of the Scalp.

This boy, 14 years old, presents a condition that the ointment used in the preceding case will not cure. He has psoriasis of the scalp. Not a hair remains and his head is as white as snow. At a little distance he looks as though he had on a white cap. I never saw a case of this affection in the United States, and when I first came to China I had considerable difficulty in treating it. I first used the ointment given to the preceding patient, and, although the cases did fairly well while they used the ointment, they immediately relapsed upon its discontinuance. I tried various combinations without success; finally I used an ointment of equal parts of liquid pitch, oleate of mercury (5 per cent.) and cosmoline. This works like a charm. The crusts are all picked off, then the scalp is washed and thoroughly dried, and then the ointment is applied. If the hair has not fallen out, I have the entire scalp shaved. In this case we will follow the routine plan just described. We will also give this boy liquor potasii arsenitis, gtt. v, three times daily, as I find that an alterative always hastens a cure. In some cases the hair grows again, even after it has fallen out. Often it comes in again perfectly white. I have seen several instances in which, as a result of this disease, a man or boy would have several perfectly white patches of hair an inch or two in circumference, growing in the midst of a head of black hair. In this case I think the boy will never have any hair at all. The most we can hope for will be a clean, shining scalp.

PERISCOPE.

Brain Grafting.

The *New York Medical Journal*, June 28, 1890, contains an exceedingly interesting paper by W. Gilman Thompson, M. D., Professor of Physiology in the New York University Medical College, entitled "Successful Brain Grafting," in which he says:

"Attempts have been made to graft nearly all the different tissues of the body: skin, bone, teeth, muscle, nerves, glands, eyes, mucous membrane, etc., have all been grafted with more or less success; but successful brain grafting has not heretofore been performed. With the exception of skin grafting, and possibly mucous-membrane grafting, the results of such experiments have been of little practical value. They are, however, of great scientific interest in demonstrating the relative vitality of different tissues and the histological changes which accompany degenerative processes. The laws of atrophy and final disappearance of disused organs, so ably advocated by Darwin, are equally striking with regard to individual tissues and cells, and it is a well

recognized fact that the higher the original development of a tissue or cell has been—*i. e.*, the more it has been differentiated or specialized from the amœba type—the more profoundly it is affected by alterations in environment or nutrition, so as to degenerate completely, or be replaced by some form of tissue like the connective, which is of lower development but stronger vitality. The result of nerve grafting and of nerve suture after complete section have varied greatly in the hands of different operators, but, despite many discouraging failures, there is no doubt that in man, as well as in the lower animals, nerve fibres may reunite when sutured even after secondary degeneration has occurred, and they exhibit restoration of function. For this to occur, however, the nerves must be in communication with some trophic centre. Nerve grafting does not succeed so well as nerve sutures in favorable cases. It occurred to me recently, while studying cerebral localization in the lower animals, that it would be interesting to graft a piece of brain tissue from one side of a dog's brain to the other, or from one animal's brain into another's and study its vitality. Of course, I had no expectation of being able to restore abolished function by the operation, but the question of vitality of the brain tissue and the course of its degeneration is a subject which is of very wide interest. The first experiments were preliminary, made in order to ascertain whether the transplanted brain would be immediately absorbed or would slough away."

In his first experiment two large dogs, A and B, were simultaneously trephined over the right occipital region; 8 c. c. of brain tissue were excised in one piece and exchanged; the piece from dog A was put into the opening in the brain of dog B, and *vice versa*. On the third day both dogs were killed, and the transplanted pieces of brain tissue looked normal, and in each case they were so adherent and firmly covered with fibrous exudation that it was impossible to pull them off with forceps without laceration. Total blindness of the eye opposite the lesion resulted in each dog, as was expected.

In the second experiment, a cat and a dog were simultaneously trephined, and 3.5 c. c. of brain tissue were removed from the dog's left occipital region and transplanted into an opening of the same size in the cat's left occipital region. Three days later the cat was killed. The transplanted dog's brain was found where it had been placed, firmly adherent to the cat's brain by a layer of fibrin, which varied from one-fourth to half an inch in thickness. The cat was, of course, totally blind in the right eye.

In the third experiment another cat and dog were simultaneously trephined; 4 c. c. of brain tissue were excised from the dog's right occipital region and replaced by an equal quantity of cat's brain from the same region. On the fourth day the cat's brain was found adherent to the dog's by a layer of fibrin.

No microscopic examination was made in connection with these experiments, as it was intended only to determine the possibility of the transplanted tissue adhering. Being satisfied in regard to this, Dr. Thompson secured a large dog and performed experiment fourth. A half-inch trephine was used and a button of bone was cut nearly through over the left occipital region, leaving a small attached margin so that the button could be elevated and then depressed like a little trap-door. Through the opening 2 c. c. of brain tissue were removed. A cat was simultaneously trephined and 1.5 c. c. of brain from her left occipital region were transferred in eight seconds to the opening in the dog's brain. The trephine opening was closed with the button, and the wound, which had been opened under careful antisepsis, was closed and dressed with layers of antiseptic gauze wet with thick collodion, which is the only practical dressing for brain operations on dogs, because they cannot tear it off. The dog was totally blind in the eye opposite the lesion and so remained until his death. He was, unfortunately, not tested as carefully in regard to the other eye. He was very dull—a street mongrel—and it did not occur to Dr. Thompson to do more than test the vision of the eye opposite the lesion (which he always found absent in such cases, with normal vision on the side of the lesion). As the autopsy showed, however, there was secondary degeneration of the opposite occipital region, which must have progressed far enough to have greatly impaired the vision of the left eye. The dog made a good recovery from the operation, although he was very feeble for a few days and had to be fed with nutrient enemata. Subsequently he appeared normal in every way, excepting the loss of vision. He was killed at the end of seven weeks, when the piece of transplanted cat's brain was found firmly adherent to the dog's brain, with the pia

mater intact. The brain was hardened in Müller's fluid for some weeks and a report of its examination was furnished by Mr. Warren Coleman, assistant in the Physiolgical Department of the Loomis Laboratory, who prepared specimens of the brain for microscopic demonstration.

The features of interest of this experiment are the apparent demonstration that there is complete union, through organized connective tissue, of the contiguous portions of the two brains; that after seven weeks the cat's brain still maintained enough vitality to be distinctly recognized as brain tissue; that brains of animals of two very different species were thus made to unite; that the cat and dog pias presented perfect union as well.

There was a sympathetic degeneration of the corresponding convolutions upon the opposite side of the dog's brain. For this curious fact Dr. Thompson cannot account. He had never noticed it before, in as many as fifty operations upon this region of the brain of cats and dogs, although he had sometimes seen removal of a part of the occipital region result in extensive softening of the entire hemisphere of the same side. The opposite degeneration in this case may possibly be a mere coincidence; if so, it is a very unusual and remarkable one. There was no meningitis to favor it.

There was descending secondary degeneration of the dog's brain on the side of the graft, as is usual in cases of simple excision of brain cortex; hence the cat's cortex had not succeeded in acting as a nutrient centre for the dog's brain. The microscopic specimens showing the line of union of the two brains were shown to several competent microscopists, who endorsed their appearance as here described, so that there can be no question of the accuracy of the observation.

The main fact of this experiment, namely, that brain tissue has sufficient vitality to survive for seven weeks the operation of transplantation without wholly losing its identity as brain substance, suggests an interesting field for further research.

Precautions in Prescribing Calomel.

The *Medical Record*, August 2, 1890, says: In times not yet long past it was the rule to caution all to whom a dose of calomel had been given to abstain for a while from salty and acid food; the reason for this precaution being, of course, the belief that calomel in the presence of strong acids or of chloride of sodium would be changed to corrosive sublimate. We doubt whether this rule is followed so strictly at the present time as it was a quarter of a century ago—in fact we are positive that it is not—and yet instances of poisoning from small doses of the mild chloride of mercury, in which the symptoms would render it probable that the conversion into the bichloride had taken place, are certainly exceedingly rare. It would seem, therefore, as if the precautions taken by a former generation were needless, and clinical experience is strengthened by theory when we consider that if this change ever took place in the body it should always, since the contents of the stomach are usually acid, and ought to convert at least a portion of the ingested calomel into bichloride of mercury. A correspondent of the *Revue Générale de Clinique et de Thérapeutique* makes a somewhat similar suggestion in a recent issue of that journal, and asks if this is not, after all, a therapeutic superstition. In his reply the accomplished editor of the journal, Dr. Henri Huchard, recalls the chemical properties of calomel. It is, first, insoluble in water. Alkalies transform it into metallic mercury and the bichloride. Concentrated hydrochloric acid, with the aid of heat, transforms it into the bichloride; so also in a measure do alkaline chlorides and alkaline iodides at ordinary temperatures. Finally, hydrocyanic acid in the presence of calomel converts it into metallic mercury and the bichloride. Of course it does not follow that the same reactions will occur in the stomach, and it is not always safe to argue from the laboratory to the human organism. It is true that the stomach normally contains acids which, in a test-tube, would convert the chloride into the bichloride, and that many persons partake freely of salty and acid foods after a dose of calomel, and suffer no evil consequences therefrom. Nevertheless, there is no harm in being prudent, especially when it is so easy, as in this case; and we think, therefore, that Dr. Huchard's conclusions are well worthy of being observed. These are as follows:

1. All the alkaline chlorides are incompatible with calomel, and we should therefore forbid all salt food after a dose of calomel has been given.

2. In certain diseases calomel is pre-

scribed in fractional doses at the same time that the patient is taking iodide of potassium; now, as this salt causes the conversion of the chloride into the bichloride, it is the wiser course not to have the two drugs together in the stomach.

3. Calomel should never be prescribed in the same mixture with preparations containing hydrocyanic acid, such as cherry-laurel water and the like.

4. Some forbid all acid drinks after a dose of calomel has been taken; but as acids convert this salt into the bichloride only when they are in concentrated hot solutions, this precaution seems hardly worth observing.

Heredity and Contagion in Tuberculosis.

In *Science*, August 1, 1890, there is cited an abstract of a valuable paper on tuberculosis by Dr. August Haupt, of Soden, which was published in the *Deutsche Medicinal Zeitung*, April 3, 7, 10 and 14, 1890.

In this paper Dr. Haupt states that among the 1,500 inhabitants of Soden there are 101 who let lodgings. In most of the houses the wives, with sisters or daughters, serve and tend the tuberculous patients who come for treatment. In many houses servant-girls from the neighboring villages, hired for the summer, help make the patients' beds, cleaning their rooms, beating the carpets, removing the sputum. These occupations, so closely connected with the danger of infection, are, among others, the tasks of these persons; and it must be added that they prefer the severest cases, because, as more help is required, the remuneration is higher. In winter the members of the landlords' families occupy the rooms in which generally the most severely affected patients have lain —the rooms on the ground floor. Between 1855 and 1888, 48 of the 238 members of such families died, 10 of them of tuberculosis. In 6 of these 10 cases, heredity was demonstrable, and the remaining 4 were due to colds and external causes. Of the 415 servant-girls, 17 died, 5 of them of tuberculosis, also demonstrably due to other causes than infection. Within 30 years, then, among 653 persons, most of whom were for several summers with and in attendance on the patients, there were 15 deaths from tuberculosis, none caused by infection. The same proportion prevails among other persons in close contact with consumptive patients—attendants, washerwomen, etc. As to the general mortality of Soden, the following data are interesting: 76 persons died during the last three years, 10 aged from 80 to 85, 11 from 70 to 80, 9 from 60 to 70. Of these 76 deaths, 7 were due to tuberculosis, including 2 cases of tuberculous meningitis in children, and 1 of tuberculosis of the bones, also in a child. Of the 4 other cases, only 1 was that of a person who came in contact with patients, and this was a case of alcoholism, ending in phthisis.

Unusual Arrangement of the Branches of the Aortic Arch.

At a recent meeting of the Pathological Society of Toronto, Dr. Primrose (*Canadian Practitioner*, August 1, 1890), showed a dissection of the great vessels arising from the arch of the aorta, which exhibited the following peculiarities: The first branch arising from the arch was a common trunk, one-half of an inch in length, which bifurcated in front of the trachea into the two common carotid arteries. The two carotid arteries, after gaining the outer side of the trachea, on the right and left sides respectively, continued upwards in normal relation to the air-tube and the other structures at the root of the neck. The second branch arising from the arch was the left subclavian; arising one-half inch from the origin of the first branch, it passed upwards to the outer side of the left common carotid artery, but lying on a plane posterior to that vessel. The vertebral artery arose from the subclavian, one and a quarter inches from the origin of the latter vessel. The subsequent course of the subclavian artery and its branches of distribution were normal; the left pneumogastric nerve passed in front of the artery to cross the aortic arch. The third branch from the aortic arch arose one-half inch from the origin of the left subclavian. It was the last of the great vessels arising from the arch. The two vessels last described arose from the superior portion of the arch, whilst the right subclavian arose from the posterior aspect of that vessel. The artery then coursed upwards and to the right, crossing the spinal column and the longus colli muscles obliquely, lying behind the trachea and œsophagus; the artery then lay on the right side of the trachea, between it and the right longus colli muscle, it then passed outwards behind the scalenus anticus muscle and occupied its normal po-

sition, crossing over the first rib. The vertebral artery was the first branch given off, and the other branches of the artery were normal in course and origin. The left vagus nerve crossed over the aortic arch, and its recurrent laryngeal branch ascended behind the arch and crossed over the anterior aspect of the right subclavian artery in its course to the larynx. The right inferior laryngeal nerve passed directly from the vagus to the larynx without running behind the right subclavian artery and was therefore not recurrent.

Leprosy Inquiry in England.

The *Lancet* says editorially, July 26, 1890: At the meeting of the Leprosy Committee last week some important resolutions were arrived at. It was agreed that a Commission should be appointed at an early date in coöperation with the Indian Government, which will contribute liberally towards the expenses. The three members of the Commission are to be nominated by the Royal College of Physicians, the Royal College of Surgeons and the Committee, respectively. Some discussion took place as to whether this third member should be a layman, but no conclusion was arrived at. It also transpired (*sic*) that the Journal of the Leprosy Committee, which is to publish facts concerning the disease, and collate information from all parts, will be of high scientific value.

Amongst the many questions which require determination is that of the best treatment of the disease, which appears to be in a very unsatisfactory state. Leaving out of consideration the question of isolation and segregation—the real value of which (in spite of the general opinion) is still a moot point—the information we have at hand with regard to the most suitable therapeutic measures is fragmentary, contradictory and not altogether encouraging. From time to time, various "specifics" have been lauded, and cases of supposed cures cited, but further trial has only resulted in failure and the different drugs have dropped into the category of useless and discarded remedies. The chaulmoogra oil seems to have held its ground longer than anything else, and is still to some extent employed with at least occasional benefit. Many observers consider that leprosy is quite incurable, and that all cases are hopeless. Nevertheless, there have been undoubted cases which have been cured in England and elsewhere. The records of several asylums in different parts of the world show that here and there is to be found a patient who has been in the institution for years—with deformity and other results of the old malady, it may be, but with all active manifestations of the disease long arrested, and with the general health quite good. To all intents and purposes such cases have been virtually *cured*. In Norway, during the quinquennial period 1880–85, some thirty-five cases have been regarded by the asylum physicians as cured. Dr. Danielssen, of Bergen, whose experience of leprosy is probably greater than that of any other man living, has stated that he regards cases in their early stages as not absolutely incurable; and many other physicians, both in Norway and other places, have also demonstrated that, although there is no specific, considerable amelioration of even bad cases may be effected by surgical and other therapeutical measures.

Explosion of Chlorate of Potassium and Chloride of Ammonium.

Mr. Charles Bullock, in the *American Journal of Pharmacy*, August, 1890, says:

The mixture of the above-mentioned salts, which has been in use for some time as a popular remedy for mouth and throat affections, has been viewed with suspicion, as a probable source of mischief, on account of the decomposition resulting between them. After a few weeks, chlorine compounds are evolved, noticeable by the odor and by the effect on the organic material which may be in contact with or near them. If the quantity of the tablets is large, sufficient heat may be generated to cause spontaneous combustion, should circumstances favor it.

We had a new experience with them a few days since. A lot of the tablets, more than a year old, were removed from the small bottles in which they are usually put up, and four ounces of them placed in one bottle and finished for delivery. While standing undisturbed, a loud explosion occurred, and the bottle containing the tablets was almost pulverized—the concussion breaking several other bottles in proximity, although they were protected by pasteboard cases. The cause of the detonation may be looked for in the formation of chloride of nitrogen as

one of the resultants of decomposition between the salts. This experience determined us to deposit the remainder of our stock of the tablets in the Delaware River for safe keeping!

African Arrow Poison.

The poisons used by the natives of Africa to render fatal the wounds made with their arrows, as described by Mr. Stanley in his recent work on Africa, are, when fresh, of most extraordinary power. Faintness, palpitation of the heart, nausea, pallor and beads of perspiration break out over the body with extraordinary promptness and death ensues. One man is said to have died within one minute from a mere pin-hole puncture in the right arm and right breast; another man died within an hour and a quarter after being shot; a woman died during the time that she was carried a distance of a hundred paces; others in varying spaces of time up to a hundred hours. The activity of the poison seemed to depend on its freshness. The treatment adopted was to administer an emetic, to suck the wound, syringe it and inject a strong solution of carbonate of ammonia. This carbonate of ammonia injection seems to have proved a wonderful antidote if it could be administered promptly enough. One of the poisons with which the weapons are smeared is a dark substance like pitch. According to the native women, it is prepared from a local species of arum. Its smell when fresh recalls the old blister plaster. It is strong enough to kill elephants. This poison is not permitted to be prepared in the village. It is manufactured and smeared on the arrows in the bush. These results of the African arrow poison are quite remarkable; but it would be interesting to know if they owe anything to fear and its effects, or if similar results can be obtained by inoculating the lower animals.

Pitjecor.

In the Reporter, April 26, a brief note of the substance called pitjecor was given. Fuller explanations from the *American Druggist*, May, 1890, describe pitjecor as an absolutely pure cod-liver oil, deprived of fat and non-emulsionized, mixed with a certain proportion of creasote, which latter dissolves easily in all oils and is not modified by them. One tablespoonful of the new preparation corresponds to two of ordinary cod-liver oil. It has the property, according to Casati, of destroying the bacillus of tubercle, rapidly diminishing the tuberculous secretion, suppressing the hectic fever and night-sweats, and rapidly ameliorating the general condition. Its effects upon nutrition, says Casati, are most striking, the patient gaining in weight almost from the commencement of its issue. The "*huile de foie de morue creosotée*," or creasoted cod-liver oil, prepared by Rigand & Chopoteaut, of Paris, seems to be about the same thing as the "*pitjecor*" of Casati, and some remarkable instances of its value in phthisis have recently been recorded in French medical journals.

Autographism.

Under this name says the *Popular Science News*, August, 1890, Dr. Mesnet has recently described to the Paris Academy of Medicine, a curious disease, or condition, of certain patients of his, which manifests itself in a remarkable sensitiveness of the skin to pressure or friction.

Dr. Mesnet finds that when the skin of such a person is written upon with a pointed instrument, pressed with the fingers, or even rubbed by a fold of the clothing, a very curious set of phenomena occur. In the first place a slight redness of the skin appears at the points where pressure is applied, or follows the point of the instrument forming the letters or figures. In about two minutes the characters appear in lines of a pale red color and increase in height, until the inscription stands out on the skin of the patient in red letters of bold relief. The characters remain visible for a considerable time, varying, with different subjects, from a few minutes to several hours, after which the skin resumes its normal appearance.

While Dr. Mesnet is unable to find a satisfactory explanation of this phenomenon, he considers it as due to a disordered condition of the nervous system, of a hysterical nature, affecting the circulation of the blood-vessels of the skin. Nearly all the patients showing this autographism had various other nervous affections, and were easily affected by hypnotic influences. Local anæsthetization of the skin by ether spray temporarily prevented the occurrence of the phenomenon, but it reappeared as soon as the effects of the ether passed away. This effect would

naturally result, for in this form of local anæsthesia the skin and blood-vessels are really frozen, and all circulation is temporarily stopped. The condition is a most curious one, and, as far as we know, has not been observed in this country.

The phenomena of autographism naturally bring to mind the *stigmata*, or spots, sometimes appearing on the bodies of religious devotees, which they claim to represent the marks made by the nails by which Christ was fastened to the cross. In olden times these persons would have been considered as sorcerers, and the peculiar marks appearing on their bodies as direct proof of their dealings with the devil and worthy of punishment by death. Fortunately, in this more enlightened age, the matter is of scientific interest only, and the unfortunate "autographists" are considered to be neither saint nor sorcerer, but only as subjects for the healing skill of the physicians.

The London Water Supply.

The *Medical Press*, July 30, 1890, says: The defective water supply of the metropolis is once more attracting public attention. A Committee of Inquiry appointed by the Corporation of the City of London is earnestly engaged on the subject. The evidence already taken is of a very important character. The slough of despond into which London has drifted with regard to the supply of one of the prime necessities of life is indeed most disheartening. The water companies when they obtained their monopoly from Parliament, stipulated to give London "a pure and wholesome supply of water." This promise, however, has never been fulfilled. The water, although somewhat better than it was twenty years ago, is still for the most part drawn from impure sources. Whenever considerable population, such as those of this vast metropolis, have been compelled to use a river water made to look clear and pleasant to the eye by allowing it to subside in tanks and passing it through a stratum of water-logged sand and gravel, a coarse process termed filtration, the greater number of the people, though dissatisfied, would not have sufficient technical knowledge of the subject to see the necessity for neglecting their usual avocations to exert themselves to effect a change for the better. If the great body of water consumers could realize the danger to health and life traceable to water polluted by sewage, then the action of Parliament would be far more earnestly invoked on the subject than it is. Surely common sense alone, quite apart from any scientific knowledge of the subject, should at once tell us that our drinking water ought on no account to require filtration.

Naphtha Intoxication.

Recently a death occurred in a manufacturing establishment in Philadelphia, caused in a curious way. A workman employed on the inside of a boiler was overcome by the fumes of naphtha, and it was impossible to resuscitate him. Two other men were overcome at the same time, but they escaped with their lives.

It is said that workmen are familiar with the fact that the fumes of naphtha and gasoline, and similar substances are dangerous, and at the Coroner's inquest it was plainly intimated that the man lost his life in consequence of his own carelessness. In connection with this fact, it is interesting to note that it is reported that there is a habit of naphtha intoxication in Germany, and also in some parts of this country. The victims are said to be chiefly women employed in India rubber factories. The naphtha is kept in large receivers, and it is said the women are in the habit of going to the valves and opening them in order to breathe the gas that escapes. The inhalation is said to produce a peculiar and an agreeable form of intoxication.

Prevention of Cocaine Poisoning.

The *St. Louis Medical and Surgical Journal*, July, 1890, states that inhalations of nitrite of amyl are to be recommended in cases of cocaine poisoning. Dr. Isador Gluck, in the *Medical Record*, states that a series of experiments have led to the discovery that cocaine in combination with phenol is free from objectionable features, and its usefulness is increased. He has adopted the following formula.

℞ Phenol . . . . . gtt. ii
Distilled water . . . . . f℥i

Shake until the solution is perfect and then add ten grains of hydrochlorate of cocaine.

Dr. Gluck has now been using the above

formula for over a year, and since then has never had to deal with a case of cocaine poisoning resulting from the use of the solution. In fact, he has been able to use it in any quantity and in any part of the nose or throat without the least fear of harmful consequences.

Depilatory.

Unna, in the *Deutsche Medizinal Zeitung*, July 7, 1890, recommends sulphide of barium as an efficient and harmless depilatory. Sulphide of barium is an odorless powder, and unirritating if not used two days continuously on any one spot. The salt is not kept in the shops, but may easily be prepared by any druggist. A stiff paste is made from powdered sulphate of barium and charcoal with linseed oil, and rolled into the shape of a sausage. This is placed in a coal fire and incinerated. The product desired is sulphide of barium, which is prescribed according to the following formula:

Sulphide of barium	50 parts
Starch	
Oxide of zinc, each	25 parts

When used as a depilatory the powder should be mixed with a sufficient quantity of water to form a soft paste, which by means of a spatula is spread about one-eighth inch thick over the surface from which the hairs are to be removed. After the paste is dry, which occurs in about ten minutes, it may be removed, and the skin beneath it will be found smooth and hairless. The action of the preparation is due to its property of dissolving the hairs.

Incontinence of Urine.

Dr. Grisolle, in the *Union Médicale*, recommends the following formula for pills which he has used with advantage in the treatment of incontinence of urine and which we quote from the *Deutsche Medizinal Zeitung*, June 30, 1890.

℞	Extr. nucis vomicæ	gr. iii
	Ferri oxid. nigri	gr. xlviii
	Quassiæ pulveris	gr. xlviii
	Syrupi absinthi	q. s. ad pil. No. xx.

Sig. One to three pills during the day.

The beneficial action of the above may be increased if cold hip-baths are taken daily and no fluids drank before retiring.

Tender Feet.

The *Dixie Doctor*, July, 1890, recommends the following treatment for tender feet. About two quarts of cold water, two tablespoonfuls of ammonia, one tablespoonful of bay rum. Sit with the feet immersed for ten minutes, gently throwing the water over the limbs upward to the knee. Then rub dry with a crash towel.

Alopecia.

The following formula will be found useful in the treatment of pityriasis alba of the scalp:

℞	Cocao butter	10 parts
	Castor oil	50 parts
	Perfume q. s.	

Mix and make ointment. Sig. To be applied every evening upon the epilated scalp.

The hair should be kept short and the use of stiff brushes avoided. In arthritic cases an alkaline treatment is indicated.

Salol for Cystitis.

In the *Boston Medical and Surgical Journal*, July 17, Dr. S. L. Abbot reports three cases in which the administration of salol seems to have led to very prompt and very satisfactory amelioration in the symptoms of cystitis in women.

Snake Swallowing.

A very odd result of rivalry between two tiger-snakes is recorded by Mr. D. Le Souef, Assistant Director of the Melbourne Zoölogical Gardens, in a recent number of the *Victorian Naturalist*. One of the snakes was large, the other being small. Not long ago both happened to fasten on the same mouse, one at each end. Neither would give way, and the larger snake not only swallowed the mouse, but also the smaller snake. In about ten minutes nothing was seen of the smaller snake but about two inches of its tail, and that disappeared next day.

Application for Burns.

The *New Orleans Medical and Surgical Journal*, July, 1890, quotes the following formula for an application for burns from the *Union Médical*:

℞	Salol	1 part
	Olive oil and lime water, each . . .	70 parts

M.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

TREATMENT OF CHRONIC BRIGHT'S DISEASE.

The treatment of chronic Bright's disease is a subject of very great interest, if only on account of the frequency of the disease. It might be difficult to name a drug which has not been recommended for it. This of itself generally indicates that a disease is obstinate and that medical treatment is ineffective; and, as a matter of fact, those who have had the largest experience with chronic Bright's disease, in its two forms of parenchymatous and interstitial nephritis, rely more upon dietetic and physical methods of treatment than upon drugs. For example, Senator, in discussing the subject in question before the Ninth Congress for Internal Medicine, at Vienna, April 15 to 18, 1890, declared that the two most important indications were to shield the kidneys and relieve them from strain, and to wash them out. To meet the first indication, agents irritating to the kidneys are to be avoided and the decomposition of albumin must be reduced to the smallest quantity possible. A milk diet with rest, if necessary absolutely in bed, accomplishes both objects, for milk is an alkaline diuretic. Buttermilk, koumys and kefir may be used to substitute milk. Patients who cannot bear milk may be given starches, and if the digestive organs will not tolerate an adequate supply of the latter, white meats, which contain least extractive matter, can be employed. As regards drinks, in addition to the milk already mentioned, mineral waters are suitable, but alcoholic beverages are to be avoided. The skin is to be kept active by warm baths and friction, with the view of lightening the work of the kidneys.

Senator believes iodide of potash to be useful in contracted kidney on account of its action upon the blood-vessels. In addition, the chief indication consists in sparing the heart and in a hygienic treatment. Moderation in the manner of life, avoidance of immoderate supply of albumin and of smoking, sparing use of drinks, especially alcoholic drinks, avoidance of fatigue, protection against chill, preservation of the activity of the skin through baths, which should not be too warm, are the most important principles in the therapeutics of contracted kidney. Change of climate, especially residence in the South during the unfavorable seasons of the year, exerts a very helpful influence.

The remarks of Von Ziemssen at the same meeting show, if possible, even more clearly that the treatment of chronic Bright's disease must be other than purely medicinal. He says, in speaking of parenchymatous nephritis: "The medication must be confined to the smallest possible quantity, as by it only too easily the digestion and the whole nutrition are injured." What he has to say about the treatment of dropsy is especially interesting. Long-continued rest in bed is

most warmly recommended; diaphoretic methods are likewise indicated, and of these the physical are preferable. Of the latter, Ziemssen calls special attention to the hot-air bath, the hot full-bath, and the partial vapor-bath. The hot-air bath, he says, is given in a warm room in which the temperature of the room can be increased to the desired degree by vapor. In contradistinction to the Russian vapor-bath, however, in which the steam enters the room directly, in this the atmosphere is poor in vapor and is thus able to extract a large quantity of water from the body of the patient through the skin and the lungs. It does not weaken the patient, and is very effective, especially when the patient remains in the bath some hours. As the dilatation of the capillaries and the increased glandular activity of the skin only slowly return to normal, the patient after the bath must be very carefully guarded against chill, which could exert an unfavorable influence upon the kidneys.

The partial vapor-bath, in the form of the cabinet vapor-bath, is very suitable, he says, for use in the sick-room. The patient remains about twenty or thirty minutes sitting in the cabinet, and is then quickly put to bed and covered with large warmed comfortables. The hot full-bath consists in putting the patient in a bath at a temperature of 100.5° Fahr.; hot water is then added until the temperature of the bath rises to 104° or 106° Fahr. After staying in this for twenty or thirty minutes, the patient is taken out and wrapped in warm comfortables. By this procedure uncommonly active perspiration is provoked, and the loss of water is very great, not rarely amounting to one or two quarts; but it weakens the patient too much, and, also, in respect to the subjective condition of the patient, is superior to the hot-air bath. It should be remembered that in all methods for inducing diaphoresis there is a more decided effect obtained after the second or third trial. It should be borne in mind, also, that in those patients in whom it is important to conserve the weight, those measures must be avoided which increase the temperature of the blood and hasten metabolism; this statement applies to the Russian vapor-bath and to the hot full-bath. In the cases referred to the hot-air bath, at a temperature of from 95° to 104° Fahr. is indicated.

Chronic disease of the kidneys appears to be in many cases only a part of a degenerative process general throughout the body; it is more easily recognized in the kidneys because its signs (albumin and casts) are unmistakable. It is folly, therefore, to treat the patient as if his kidneys were the only organs diseased, and actually harmful to whip them to increased activity with irritating diuretics. The whole man requires treatment, and this should be of such a nature as to check degeneration, conserve strength and shield the weakened organs from extra work. To this end diet, hygiene and physical methods of treatment are to be preferred to drugs, which are best reserved to meet special indications or emergencies.

MEDICAL LAW IN NEW YORK.

The Governor of New York approved, in the month of June, a bill establishing three boards of medical examiners in the State of New York, each to be composed of seven members, appointed by the Board of Regents of the University of the State of New York from three lists of candidates, furnished one each by the Medical Society of the State of New York, the Homœopathic Medical Society and the Eclectic Medical Society. The work of these Boards will begin September 1, 1891, and after that date no one will be permitted to practice medicine in the State of New York who has not before that date been a legally qualified practitioner without passing an examination before one of these Boards—except that the Regents may grant licenses to persons who have passed an examination before an Examining Board in another State, on proof that the standard of requirements of the latter is

substantially the same as that in the State of New York. The law exempts from examination surgeons of the U. S. Army, Navy and Marine Hospital Service, legally qualified physicians or surgeons residing in other States or countries, meeting regular physicians and surgeons of New York in consultation, or legally qualified physicians or surgeons residing on the border of a neighboring State, whose practice extends into the limits of this State; providing that such practitioners shall not open offices or appoint places to meet patients or receive calls within the limits of the State of New York.

According to the *Buffalo Medical and Surgical Journal*, August, 1890, after June 24, 1890, physicians not holding diplomas granted by some legally incorporated college of New York State, desiring to practice in this State, must first possess the preliminary qualifications required of all medical students before graduation from a medical school of this State; second, their diplomas must be endorsed by the Regents of the University of the State of New York, at Albany, upon the recommendation of a legally constituted board of medical examiners of this State; third, the then endorsed diplomas or licenses must, as heretofore, be registered in the County Clerk's office of the county in which they intend to practice in. This new law takes from the medical colleges of this State the power to endorse diplomas or licenses granted outside of the State.

This is the state of affairs in the State of New York, and it marks another step in the right direction. We are not in accord with some features of this law; but are glad to see the principle upon which it rests recognized in spite of the opposition of many whose opposition might have been expected and of some whose opposition to it has caused surprise throughout the country.

MEDICAL LAW FOR CALIFORNIA.

The need for legal regulation of the practice of medicine is being freely felt in California, where, for years, the profession has been talking about having something done. The *Pacific Medical Journal*, August, 1890, expresses the fear that California will become a refuge for quacks and imperfectly-educated physicians unless the State adopts measures to test the fitness of those who intend to practice medicine there. It advocates the passage of a law establishing a State Board of Medical Examiners and indicates the sort of a law which it believes to be efficient and practicable.

Our sympathies go with our contemporary in its endeavor to stimulate the profession in California to labor for a measure which must come in time, but which will come sooner if those who have the elevation of the standing of the profession at heart will work for it.

AMERICANS AT THE BRITISH MEDICAL ASSOCIATION.

The *Medical Press*, August 6, 1890, says: "From what we can gather, the large batch of American doctors who 'took' Birmingham on their road to Berlin, feel very dissatisfied and hurt at the way in which they were received, or, rather, not received. To show their discontent, most, or at any rate many of them, left Birmingham early in the week, shaking the dust from their feet on an association which has treated them so scantily. We shall probably hear more of it when the malcontents, many of whom are medical editors, have had time to pen their complaints to their respective journals. It will be interesting to know whether it was an unduly stern janitor or some less humble official or officials who has thus aroused their susceptibilities."

The rumor here is that the Americans, numbering about forty, were offended by some slight of Mr. Lawson Tait. Why they were offended and with what cause might well be ascertained; so that, if our British cousins were uncivil, they can—as they surely will—make it right; or, if our compatriots were too touchy, we may admit our fault.

INSANE MAN SCALDED TO DEATH.—A CORRECTION.

In the REPORTER, August 16, there was published a short account of the death of an insane person from scalding in a bath-tub. It was said to have taken place at the Philadelphia Hospital. The source of information was one of the most trustworthy newspapers in this city, which had made a mistake. The chief Resident Physician of the Philadelphia Hospital writes to this office that no such death occurred in that institution, and we are informed that it was at the Pennsylvania Hospital for the Insane. We regret that we should have inadvertently done the Philadelphia Hospital an injustice, and trust the correction will catch up with the error and undo it.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

ELECTRICITY IN THE DISEASES OF WOMEN, WITH SPECIAL REFERENCE TO THE APPLICATION OF STRONG CURRENTS. By G. BETTON MASSEY, M. D., Physician to Gynecological Department of Howard Hospital, etc. Second Edition. Revised and enlarged. 12mo, pp. xii, 240. Philadelphia: F. A. Davis, 1890.

The appearance of the second edition of Dr. Massey's book at so early a date indicates not only the favor with which this work has been received, but also the widespread interest which the use of electricity in the treatment of diseases of women has excited. This interest undoubtedly is caused by the great prevalence of painful and dangerous diseases among women, and the fact that unless electricity will cure them, resort must be had, in many cases, to major surgical operations. The conditions concerning which the claims of surgeons and electricians do not agree are especially uterine fibroids, extra-uterine pregnancy, and inflammatory disease of the uterine appendages.

The section devoted to the treatment of uterine fibroids contains the teachings which have become familiar to the profession during the past few years The chapter on extra-uterine pregnancy presents very modest claims for electricity in the treatment of this condition. Electricity is advised only where the pregnancy is diagnosticated prior to rupture—before the fourth month—and when, after rupture, death does not take place, and an hematocele forms; in which case, after acute symptoms have subsided, a mild galvanic current is advised to promote absorption of the mass. These conditions are found with such relative infrequency that, if the author's views be accepted, electricity will seldom be employed in the treatment of ectopic gestation. It is pleasant to observe that order is coming out of chaos in the hitherto conflicting claims of surgeons and electricians. The chapter on the treatment of diseases of the uterine appendages contains some teaching which challenge attention. By the use of electricity a large proportion of cases of ovaritis, salpingitis, and "allied conditions," are to be permanently cured; and pyo-salpinx is also to be attacked, as the author has seen no evidence that pus in a tube, or elsewhere in the pelvis, is a contra-indication to electrical treatment. Moreover the claim is indirectly made that not only can pyo-salpinx and salpingitis be cured, but also sterility, due to positive structural changes resulting from the inflammatory disease, and usually consisting in occlusion of the fimbriated extremities of the tubes by plastic deposit, together with one or more strictures in the course of the tube. These general statements are based on the results of treatment in three cases only. It is unfortunate that the author has not maintained, in this chapter, that temperance of statement which in general characterizes his book. This attempt to invade the domain, now generally conceded to the abdominal surgeon, is probably the result of the outrageous attacks which have been made by certain surgeons upon electricians, and from which Dr. Massey himself has suffered. Viewed in this light the author is, in a sense, excusable; yet in the interest of science, that which is reasonably demonstrable should be kept strictly separate from that which is almost purely speculative.

Excepting this chapter we have only commendation for this popular work; which, by widely disseminating the teachings of scientific electricians, will be a positive factor in arriving at that much-to-be-desired end—the determination upon clinical evidence of the real status of electricity in therapeutics.

LITERARY NOTES.

—The *Dixie Doctor* for August opens the second half of its first year's progress. The editor says that hearty and substantial favor has been extended to the new journal, and promises that its pages shall be increased and its departments extended. Correspondents in Vienna, New York and Philadelphia will keep the readers informed of medical progress. In response to numerous requests the subscription price is soon to be increased to $2.00 a year.

—The *Pacific Drug Review*, published at Portland, Oregon, in its issue for August, 1890, contains ten pages of reading matter so interleaved with advertising pages that to separate them is a serious task. As the journal comes rolled, also, the REPORTER will have to dispense with the pleasure of exchanging with it hereafter, and wish the *Review* success and amendment.

CORRESPONDENCE.

Treatment of Hay Asthma.

TO THE EDITOR.

Sir: An article in the REPORTER of August 9, induces me to present my views, having had the dreadful incipiency of hay asthma in my family. In August, 1849, the first and worst case that I ever saw came before me—

the first I knew of in New York. The third season, when I asked my old preceptor, Prof. J. M. Smith, to see the patient, he could not credit such an ailment to exist. My wife, when young and healthy, with no stomach or other ailment, was visiting in Newark, N. J. The house was in a large garden with flowers and fruit. About two o'clock one afternoon she began to sneeze and so continued for three hours; the blood flying from her nostrils at last. This state of things occurred about the same hour for two weeks, when conjunctivitis set in, keeping her in bed two weeks, when that abated. Occasional cough with asthmatic symptoms then set in, increasing in frequency and violence until frost came, when all these symptoms disappeared. This complaint continued to reappear every 25th of August, less violent at its beginning, but more aggravated and distressing later on, for twenty years, until her death. When ignorant of the date she would begin to sneeze and would say this must be the twenty-fifth; and so it always was.

About this time I saw a reprint of the *Albion*, an English paper, a whole side of which was devoted to a nobleman's experience with this complaint; and I have always thought that it gave the most rational theory of any advanced concerning it. As I recollect, from his long suffering with it and its regularity of attacks as to date and season and its disappearing by frost, he thought that it must be caused by animalculæ generated just at that time in the atmosphere. As I remember, a plum tree grew near his window. On one of its branches he suspended a piece of glass, daily, moistened with mucilage.

At the date of his sneezing, animalculæ were discovered with a microscope on it, which continued to appear daily until frost came, when his trouble left him, and the animalculæ were not seen again until the next season, when his trouble began. Dr. W. Roberts, editor of a medical journal in New York, suffered for years with the same complaint, in the same way as my wife did, from August 30. This delay with him may have been from the less sensitiveness of his Schneiderian membrane. The peculiarity of the asthma with my wife was, that it seemed to trouble her only when about to lie down at night. Chloroform then to anæsthesia would effect the desired relief. Remedies like quinine for bacteria may avail. Fire Island used to afford relief when the wind did not blow over Long Island. The White Mountains exempted Dr. Bucher and others. Schooley's Mountain helped some, and a voyage to Europe benefited Beach Vanderpoel, of Newark, and others, so long as they remained away; but returning before frost, they were immediately affected. The yellow-fever districts in New York in 1822, produced that complaint in like manner until frost came, hence its non-contagious character.

Yours truly,

E. VANDERPOEL.

New Suffolk, L. I.

Treatment of Asthma.

TO THE EDITOR.

Sir: I have just finished with my third case of asthma, treated as recommended by Dr. T. J. Mays in MEDICAL AND SURGICAL REPORTER, April 12, 1890. Practically, they are well—an injection now and then, however, being still necessary. One of them, an old colored woman, has been well for weeks from one injection. I feel that I owe Dr. Mays many thanks for my patients and for myself.

By becoming acquainted with his methods I have cured three cases of asthma, two of lumbago and have greatly relieved a case of sciatica.

Yours truly,

JAMES WARE, M. D.

Lake Charles, La.

QUESTIONS AND ANSWERS.

[In this department will be published questions on any medical subject by readers of the REPORTER, and answers by the EDITOR or by other readers.]

Hypnotized by a Lunatic.

DR. W. WOODRUFF, of London, Ont., writes in answer to a request for the facts in regard to the case of alleged hypnotism by a lunatic, mentioned in the REPORTER, August 23: I have made inquiries amongst my friends, both medical and otherwise, and I have been unable to learn anything in regard to your communication. Last spring I was asked to see a married woman in regard to her fancies, and found her a lunatic and signed a certificate to that effect. She was sent to an asylum. Her fancies were much the same as described in the enclosed clipping. She traveled all around the city

at times, living from home for several nights on different occasions. The article you enclose may refer to her, as she was a great talker and was continuously complaining about the power such a person had over her.

NOTES AND COMMENTS.

Recognition of Blood in Medico-legal Investigations.

Klein, in the *Zeitschrift für Analytische Chemie*, publishes an able article on the recognition of blood in medico-legal investigations, which we quote from the *Boston Medical and Surgical Journal*, July 3, 1890.

For the extraction of blood-stains, Klein recommends water saturated with carbon dioxide (Struve's process) as giving the best results. The stained spot is cut out, placed in a test-tube with two or three cubic centimeters of distilled water, and treated with a slow stream of carbon dioxide. Stains which are only a few hours old are usually completely extracted in five to ten minutes; those up to two weeks old require fifteen to twenty minutes; those up to one month, about thirty minutes, and those six to eight weeks old, from thirty minutes to one hour. The whitish or yellowish masses of fibrin are left unaffected. The clear, yellowish or brownish-colored solution thus obtained is examined spectroscopically. In the case of stains extracted immediately after drying, the two absorption-bands of oxyhemoglobin in the yellow and green portion of the spectrum are alone visible. If the spectrum is shaded up to the red, the methemoglobin band in the red is easily recognized. The intensity of the absorption-band in the red increases with the age of the stain, and in stains fourteen days to one month old it is nearly as intense as the bands in the yellow. Stains five or six months old give solutions in which the band in the red is, at times, the only one visible; and this was always the case in stains six to eight months old. Such old stains, after treatment with carbonic-acid water for some hours, still leave behind a brownish-colored residue, which, freed from adhering fluid by means of blotting paper, gives up to glacial acetic acid or to ammonia after about ten minutes' treatment a brown coloring matter whose acid solution in thick layers shows plainly the absorption-band of acid hematin. Both the ammonical and acetic acid solutions, when treated with ammonium sulphide and twenty per cent. soda solution in slight excess, give the spectrum of reduced hematin.

Solutions of old blood-stains in carbonic-acid water, which have a reddish-brown color and show the methemoglobin band in the red, are immediately changed by treatment with an aqueous solution of hydrocyanic acid (1–2 drops of a 1–1,000 solution, or 12–15 drops of a 1–10,000 solution). The solution has a reddish tinge, and on spectroscopic examination only the bands in the yellow and green are visible; the methemoglobin band having disappeared. In place of this is a faint shading of the spectrum between the positions of the two oxyhemoglobin bands. Solutions of fresh blood-stains are apparently unchanged by hydrocyanic acid. The action of hydrocyanic acid possibly affords a means of determining the age of a given stain. For this purpose, the relative intensity of the absorption-bands in the red and green is determined; the band in the red is then obliterated by the action of hydrocyanic acid; the solution is then examined in a layer so thick that the violet end of the spectrum is shaded, when a conclusion may, perhaps, be drawn, in regard to the amount of unchanged oxyhemoglobin, from the intensity of the bands in the yellow and green portions of the spectrum. Solutions in carbonic-acid water which show the absorption-bands of oxyhemoglobin give, on careful treatment with ammonium sulphide, the spectrum of reduced hemoglobin. If this solution is shaken with air the oxyhemoglobin bands again appear. Finally, if a few drops of soda solution are added, the spectrum of reduced hematin is obtained.

If the stain cannot be removed by scraping, one can, after the spectroscopic examination, precipitate a small portion of the carbonic-acid solution with suitable reagents; for example, chloral hydrate, zinc acetate or tannin, and employ the precipitate for the production of hemin crystals. The author has made a special investigation of the process recommended by Ferry de la Bellone. The carbonic-acid solutions gave immediately, upon the addition of chloral solution, a rose-colored turbidity and later a similar rose-colored precipitate, which settled completely after some hours. A drop of this precipitate gently warmed on a glass slide furnished a coagulum in which, after treatment with fuchsin and acetic acid, numerous blood-corpuscles were detected on

microscopic examination. The test for hemin crystals was equally satisfactory. A small quantity of the precipitate dissolved in ammonia and treated with a few drops of a solution of ferrous sulphate and tartaric acid gave a solution which exhibited plainly the absorption-band of reduced hematin. An acetic acid solution of the precipitate furnished an equally satisfactory absorption-band of hematin. The chloral precipitate dried over sulphuric acid in a desiccator and kept for six months, furnished, on proper treatment, hemin crystals and the spectra of hematin and acid hematin as satisfactorily as did the original moist precipitate. The precipitate obtained by the addition of zinc acetate to a carbonic-acid solution of blood-stains furnished, on proper treatment, the spectrum of hematin in acid solution, and of reduced hematin; but, did not, as a rule, afford hemin crystals.

If the fibrine left after extraction with carbonic-acid water is submitted to the action of water saturated with carbon dioxide for twenty to twenty-four hours, and the residue is then examined microscopically, it is possible at times, especially if the blood is dried in a thick layer and not on a porous surface, to recognize the blood-corpuscles, normal in shape and size. These could be satisfactorily measured after they were treated for ten to twenty minutes with a one or two per cent. solution of perosmic acid, or, after they were colored with an aqueous fuchsin solution. An excess of the fuchsin solution can be removed by washing with water containing carbonic acid. The diameter of blood-corpuscles from stains varied after this treatment, in human blood between 0.00748 and 0.0078 mm., in the blood of the ox between 0.00592 and 0.00624 mm. In the case of stains more than six to eight months old from which carbonic acid fails to remove the coloring matter, other solvents may be employed; for example, dilute soda solution, acetic acid, etc.

The author describes experiments in which the foregoing process with unimportant variations was employed. In one of them some coarse sand was mixed with five per cent. of blood and examined ten years later with satisfactory results.

Salipyrin or Salicylate of Antipyrin.

In a communication made by M. Vigier to the Paris Pharmaceutical Society more than a year since, attention was called to the reaction which occurred between antipyrin and sodium salicylate. This reaction has been thoroughly investigated by Professor Spica, of Florence, who reports (*L' Orosi*) that the liquefaction of the mixed powders is due not to the formation of salicylate of antipyrin but simply to absorption of moisture from the atmosphere. He also states, however, that he has succeeded in preparing a well-crystallized compound which he considers a salicylate of antipyrin and which he thinks may prove of therapeutic value. He obtained the salt by gradually adding to a dilute boiling aqueous solution of antipyrin a molecular proportion of salicylic acid (100 parts of antipyrin to 73.4 of salicylic acid). If the solution be sufficiently dilute it remains clear while boiling, otherwise a yellow oily substance will separate out which requires recrystallization from water. The salt is described as occurring in fine colorless crystalline scales, or in flocks formed of very much elongated crystals, the scales tending to group together. These scales are soluble in 25.0 parts of cold and more soluble in hot water, and freely soluble in alcohol, ether, chloroform and carbon bisulphide. Since the publication of Professor Spica's observations, Dr. Scholvein has stated that this compound has been already tried in the Berlin hospital under the name of salipyrin with satisfactory results. Dr. Scholvein also suggested as a simpler method of preparing the compound, that the components be heated together in molecular proportions, and the resulting crust be dissolved in and crystallized from alcohol. It may also be obtained by shaking together an aqueous solution of antipyrin and an ethereal solution of salicylic acid, when the compound separates out in handsome crystals.—*Druggists' Circular*, August, 1890.

Leprosy Items.

The Rev. S. J. Blum, of Philadelphia, in a letter in the *Public Ledger*, August 12, describes a visit to the Moravian Leper Home at Jerusalem, and says:

"The question is often asked whether leprosy is contagious, and if so, in what way is the disease contracted? That it is not eminently contagious is borne out by the fact that of all the missionaries and nurses of the Moravian Church who have labored among the lepers, both in South Africa and at Jerusalem, none of them have ever con-

tracted the disease. It is known, however, to have been contracted by inoculation. If the nurses, before washing the sores of the lepers, are careful to see that they themselves have no sores on their hands, they need not fear inoculation. It is possible that inoculation may have been the cause of the heroic Father Damien contracting the disease after he had labored so faithfully in tending the poor sufferers at Molokai."

Dr. E. W. Thwing, of Brooklyn, has recently returned from a tour to China, India and Norway, where he studied leprosy. He found the disease common along coasts where the people eat raw fish. This is especially true in Norway. He does not think the leprosy of to-day particularly contagious, and in this it differs from the leprosy of Biblical times. Dr. Thwing and his wife visited the lepers and touched many of them. They saw healthy children nursing from leprous mothers.

The government of India reported, August 15, that the medical authorities were unable to agree as to whether leprosy is contagious or not. The local governments also differ on the question. The proposed legislation in Great Britain will therefore be postponed until full details have been collected through the National Leprosy Fund, in conjunction with a medical commission which will leave England in October.

The *Pall Mall Gazette* has received a letter from Sister Rose Gertrude, who went from England to take the place of the late Father Damien, dated July 1, Leper Receiving Station, Oahu, Hawaii, in which she says: "I have read and received many notices concerning lepers, but I think I may say, from all I have seen here, while under Dr. Lutz, that to treat lepers a real physician is required with a practical knowledge of all the drugs of the pharmacopœia, their action, affinities, etc., and a further knowledge of many cutaneous diseases and efficacious remedies. Also he must be versed in microscopic matters. With all these requisitions it is possible, as I see here, to arrest the progress of the disease, to disarm it of its malignity, and to establish perfect nutrition and good general health."

There was a scare in Chester, Pa., on August 20, because it was reported that a leper had been discovered in the town. The alarm proved to be a false one on investigation.

On August 25 it was reported that several cases of leprosy had been discovered at Englishtown, Cape Breton. The victims have been constantly associating with their neighbors, and it is feared that the disease has been communicated to a great many people.

Disinfection of Stools with Whitewash.

Dr. Phuhl, in the *Revue Médicale*, March, 1890, states that the addition of two per cent. of whitewash containing twenty per cent. of lime to typhoid or cholera stools, will completely sterilize them within an hour. The whitewash must have an alkaline reaction. The whitewash should be well mixed with the feces. Drs. Richard and Chantemesse have recently confirmed Phuhl's conclusions; indeed they have found that whitewash sterilizes typhoid and dysenteric stools in a half hour when the proportion of lime present is only four per cent. Similar results were not obtainable with a four per cent. solution of chloride of lime, or with a 1–50,000 solution of corrosive sublimate.

Although it has been found that the addition of two per cent. of whitewash of the stool is sufficient to cause complete sterilization, still an excess of this quantity is advisable. There is no reason why the quantity should be limited, since a pound and a half of lime costs only a few cents, and will make enough whitewash to sterilize two hundred and fifty quarts of fecal matter. Whitewash is also valuable in disinfecting the utensils used by patients suffering with contagious diseases.

Brine as a Preservative.

The Berlin correspondent of the *Medical Press*, July 30, 1890, states that the papers published a short time ago an account of the discovery of numerous bodies of Hungarians who perished years ago in an insurrection. The bodies, nineteen in number, were discovered in a brine pit at Vizakna, in Hungary. The Royal Gerichtsarzt, Dr. Heinrich König, of Hermannstadt, published more recently an interesting account of the autopsy made by him, July 6, on the bodies thus found. The conditions presented were of importance in many respects as regards medical science. In external appearance, the whole of the bodies resembled those preserved in the museums in spirit. No trace

of decomposition could be detected, the skin was of a grayish-white color, the muscular tissue was rosy-red and felt like fresh flesh. All the intestines and organs, the lungs, heart, liver, spleen, kidneys, bladder, stomach and intestines were scarcely more consistent in fresh bodies, the brain was hard and dirty gray as in spirit preparations. The structure of the organs was plainly recognizable to the naked eye, so that they might have served for anatomical teaching. A remarkable fact, as Dr. König remarks, after having been preserved for more than forty-one years.

The colon contained copious yellowish-brown feces, but without odor, and in the bladder yellow urine was present. Crystallized salt was found in considerable quantity in the interior of the bodies which had been deposited and settled in the various tissues and organs. It was met with even on the inner surface of the uninjured pericardium to the extent of five grams.

Australian Method of Preventing Conception.

Mr. Carl Lumholtz, M. A., Member of the Royal Society of Sciences of Norway, undertook an exploring and collecting expedition to the northern parts of Australia a few years ago, and on his return gives the result of his researches into the customs and habits of the Australian aborigines, who are generally accounted the lowest race of savages now in existence. Among other customs these people have a curious surgical procedure, called the mika-operation, which is much resorted to for the purpose of preventing the increase of population. The operation, which is performed with certain religious rites, consists in making an incision into the urethra with a flint knife. In a few tribes the males are operated on in childhood, only about 5 per cent. being spared. In other tribes a husband must submit to the operation after becoming the father of one or two children.

It is said that the incision is about an inch long, and is made almost to the scrotum; the wound surface is cauterized with hot stones, and during the process of healing little pieces of wood are inserted into the orifice to prevent it from closing. This artificial hypospadias is said to have the desired result, and the man has no more children.

The motives which inspire the performance of this operation are as different from those which prevail among the more highly cultivated peoples as are the methods for bringing about the desired result. The reason as assigned is that the aborigines are very indolent, and the idea of providing sustenance for a number of children is very repulsive to the untutored savage, who takes this way of escaping from the dilemma.—*Weekly Med. Review*, July 26, 1890.

Diphtheria in Fowls.

The Paris correspondent to the *Lancet*, July 5, 1890, says that at a recent meeting of the Société de Médecine Publique, of Paris, Dr. Saint-Yves-Ménard read a paper, in which he endeavored to prove the non-identity of human diphtheria and the diphtheria of birds. Drs. Cornil, Löffler, and Mégnin have shown that human diphtheria and the diphtheria of birds are two distinct maladies, produced by two microbes absolutely different. An important fact was communicated to Dr. Ménard by Dr. Straus, the eminent bacteriologist. A certain number of pigeon fanciers at the Halles Centrales, feed the birds from their mouths. The pigeons which are under their care, particularly those of Italian origin, often present a malady known under the name of "chancre," which is nothing else than diphtheria. It has never been known that any of the "fanciers" were affected with diphtheria, nor that any child contracted the disease at the Jardin d'Acclimatation from the birds affected with diphtheria.

Medical Examiners for New Jersey.

On August 19, Governor Abbett named the Board of Medical Examiners, under the law spoken of in the REPORTER, August 2, 1890. The Board consists of Dr. Eugene Tiesler, of Orange, a graduate of the Eclectic Medical College of the City of New York in 1887, to serve one year; Dr. Armah Uebelacker, of Morristown, New York Homœopathic Medical College, 1871, to serve three years, and Dr. A. H. Worthington, of Trenton, Hahnemann Medical College, 1860, to serve one year; Dr. William Perry Watson, of Jersey City, College of Physicians and Surgeons, New York, 1878, to serve two years; Dr. W. L. Newell, of Millville, Jefferson Medical College, 1859, to serve

one year; Dr. Henry G. Wagoner, of Somerville, University of Pennsylvania, 1851, to serve one year; Dr. George W. Brown, of Long Branch, College of Physicians and Surgeons, New York, 1879, to serve three years; and Dr. Hugh C. Hendry, of Newark, Bellevue Hospital Medical College, 1872, to serve one year.

The Board will meet the first Tuesday in September to organize.

NEWS.

—A Parliamentary return shows that during 1889 twenty-seven people died of starvation in London.

—An epidemic of influenza was raging in Breslau, on August 20, and ten cases were reported at Operlin.

—Dr. Horace E. Ashmead, who had been in the drug business for many years, died in Philadelphia, August 21, in his sixty-fourth year.

—A plague, believed to be malignant diphtheria, was ravaging the fishing towns on the French shore, Newfoundland, about August 20.

—Dr. Milton J. Rosenau, of Pennsylvania, has been nominated by the President to be Assistant Surgeon in the Marine Hospital Service.

—A case of fracture of the cervical portion of the spinal column is reported to have been recently cured in the Presbyterian Hospital in Philadelphia.

—The Marine Hospital Bureau has been notified of a case of yellow fever on board the Spanish bark Castillo from Cienfuegos via Pancougala, now detained at the Chandeleur Quarantine Station, Mississippi.

—Dr. Samuel Merritt, probably the wealthiest citizen of Oakland, Cal., died August 17, aged sixty-eight years. He settled in Oakland in the early days and acquired his vast property in Oakland and San Francisco.

—A woman living in Buckingham, Quebec, went berry picking on August 22 and left her child in charge of two boys, deaf mutes of unsound mind. On her return she found that the deaf mutes had killed the child and partially eaten its body.

—A woman, thirty-three years old, an inmate of the Friends' Asylum for the Insane, Philadelphia, committed suicide August 17. She was left, by an attendant, alone in a bath-room and drank a solution of corrosive sublimate used for exterminating roaches.

—On the retirement of Surgeon-General John Moore by operation of law on account of age, August 16, the President sent to the Senate the name of Colonel Jedediah H. Baxter, Chief Medical Purveyor, to be Surgeon-General with the rank of Brigadier-General.

—The Assistant Secretary of the Treasury has sustained an appeal from the decision of the Collector at Boston assessing duty at the rate of twenty-five per cent. ad valorem as a medicinal preparation on a certain malt extract, holding that the article is not in any sense a medicinal preparation, but a food product.

—Dr. Leonard J. Gordon, President of the Jersey City Board of Health, has made a suggestion that all telegraph poles on which live electric wires are strung be painted red, that the public may be able to distinguish them. Dr. Gordon will bring the subject up for discussion at the next meeting of the Board.

—The British war-ship Buzzard arrived at Halifax, August 24, from Jamaica with yellow fever on board, having been ordered to Halifax on account of the fever breaking out among the crew. There had been nineteen cases on board at one time and one of the victims died at Port Royal and was buried there. All the others had recovered except five.

—The Board of Health of Philadelphia, in its last annual report, recommends the selection of a site or sites for a municipal hospital or hospitals at an early day. It also recommends that the Health Officer, Lazaretto and Port Physicians be appointed by the Director of Public Safety, instead of the Governor, and suggests that the Health Officer should be a man with thorough medical training and a high order of executive ability.

—A sensation was caused in London, August 19, by the announcement that there was a case of Asiatic cholera in London. A man landed on August 17 from the steamer Duke of Argyll, from Calcutta, which had just arrived at this port and went to a coffee house, where he secured lodgings. On August 19 he was carried on a stretcher from the coffee house to Popular Hospital, where the doctors pronounced his case one of Asiatic cholera.

MEDICAL AND SURGICAL REPORTER

No. 1749. PHILADELPHIA, SEPTEMBER 6, 1890. Vol. LXIII.—No. 10.

Clinical Lecture.

ANEURISM OF THE AORTA.—CATARRHAL JAUNDICE.

BY JAMES B. WALKER, M. D.,
PHILADELPHIA.

Aneurism of the Aorta.

Gentlemen: Last week I showed you a case of simple aneurism of the aorta and another one in which there was either an aneurism of the aorta or a dilatation of the left auricle. The brûit was in the second left interspace; but I told you at the time that the aneurismal wall was liable to yield in the direction of the least resistance and that position of the pulsation was of little value in diagnosis. Although the pulsating tumor shown evidently overlay the base of the heart, located as it was below the second rib, yet it might be an aneurism of the aorta at its root within the pericardium or an extra pericardial aneurism bulging downwards and to the left. Since then the patient has died and I now show you the result of the autopsy.

Here are the heart and its appendages. Examining them, we find a fusiform dilatation of the aorta and also a saccular aneurism commencing immediately above the semi-lunar valves and within the pericardial sac, about as large as a small orange. The valves of the aorta do not close properly and, as a result of this condition, we had an aortic regurgitation. The aneurism is smooth, sessile, round and to the front of the aorta; it is an old aneurism, with smooth but thickened and somewhat rigid opening of communication with the aorta. It contains no coagulum, because it lay on the convex side of the aortic curve and was, therefore, in the seat of a strong blood current.

This aneurism was not the cause of death. It would have been a favorable case for electrolysis or any other clot-forming method of treatment. The aorta is roughened on its internal surface by calcification from an old endarteritis, possibly of specific origin, whose degenerating influence in the aortic wall was the primary cause of the aneurism itself. I would have feared electrolysis, lest the formation of a clot would have obstructed this cavity. The aneurism, as you see, occupied part of the space usually filled by the heart and resembled a case of marked dilatation of the left auricle, due to the regurgitation of blood through the mitral orifice. Besides the position, there was another physical sign which made me think it might be a dilatated left auricle, and that was the forcible diastolic brûit. This is explained by the aortic regurgitation which no doubt existed.

Catarrhal Jaundice.

This man came here three weeks ago. He was then vomiting a greenish fluid and his stools were light colored. He had had an inflammation of the stomach, and four days afterwards jaundice appeared. He was given small doses of calomel, and in five days he was feeling quite well again. His temperature was normal; in twenty-four hours it went up to 101° F. and is now 100°. The yellow staining is still to be seen on the walls of the abdomen where it appears later than on the mucous surfaces. The conjunctivæ are found to be stained on the lining of the lids, though the scleral conjunctiva is clear. The tongue is also clean on its upper and under surfaces, but the inner surface of the lower lip still shows the staining.

Before he was brought here the patient had had the influenza, which left him in a weakened state generally and especially in his digestion. Improper diet as to quality, and perhaps also as to quantity, induced a

dyspepsia resulting in a gastro-intestinal catarrh, associated with vomiting and followed by light-colored stools and general yellow staining of the visible surfaces, both mucous and tegumentary. This is catarrhal jaundice. It results from a catarrh, with consequent irritation and swelling of the mucous lining of the common bile duct and continues with the catarrh of the duodenum and stomach. The inflammation may extend not only to the smaller ducts of the liver, but even to the hepatic cells themselves. Jaundice from this form of obstruction varies greatly. Its depth is due to the completeness of the occlusion of the common duct. If incomplete, the jaundice may be slight, as in this case, or intense and long persistent where errors of diet protract the original cause. The jaundice from a biliary calculus, as a rule, lasts but a short time. The stone is either more or less rapidly carried into the duodenum or, if too large to be driven through, it may ulcerate in any direction or it crumbles and is easily voided as biliary gravel. The jaundice following an ordinary attack of bilious colic, is due, not to the obstruction of the duct by a stone, whose transit is too short lived to induce much, if any, cholemia, but to the biliary catarrh, induced by the injury to the mucous coat of the bile duct by the sharp, hard edges of the calculus which persists long after the stone has escaped. The treatment, in this case, has been chiefly mercury and sodium phosphate ; and he has had removed from his diet everything that is constipating, irritating or stimulating. His nutrition has been altogether liquid or semi-liquid. It should be milk, with or without lime water or seltzer water, in varying amounts, according to the patient's preference. I prefer the latter where gastric catarrh persists. Peptonized milk may also be used when the stomach is to have thorough rest. Something must also be given to lessen the concentration of the bile which is started in the hepatic lobules as one of the most fluent of fluids. This fluency is due in part, as you know, to its dilution, but much more to its property of wetting animal membranes on account of its peculiar salts, the glycocholate and taurocholate of sodium, to which it owes its virtues in influencing the absorption of the emulsified fats. But while starting as an extremely dilute fluid, arrangement is made for the resorption of much of it before it reaches the duodenum. The ducts and the gall cyst are abundantly supplied with capillary vessels and special retention cysts are found, into which the bile can enter and from which its liquid may be absorbed. In obstruction to the inflow, this is accentuated ; and perhaps in this manner of direct absorption, along the ducts and in the cyst, as much as by the backward pressure into the capillaries of the lobules, the bile tinges the blood and all the tissues it comes in contact with as well as all the secretions. The main object of treatment is to lessen the tendency to inspissation of the bile, by rendering it more alkaline, and to prevent the precipitation of cholesterin, which is excreted by the liver, and which, when it becomes concentrated, crystalizes and forms gall-stones.

What shall we give to produce this result? There is an old maxim in therapeutics, to give ammonium for the lungs, potassium for the kidneys and sodium for the liver. Although this maxim is not of universal application it nevertheless serves as a basis for therapeusis. Sodium being the basis for the liver salts is especially appropriate in aiding in preservation of the alkalinity of the secretions. Some advocate the use of the bicarbonate and others of the phosphate of sodium. I prefer the latter for the reason that the phosphate can be taken more easily and for a longer period of time. It should be given in doses of from one-half to one teaspoonful in half a tumbler of hot water one-half an hour before meals ; and this treatment should be kept up until the jaundice begins to lessen, after which it should be continued in teaspoonful doses in the same way before breakfast. Some prefer the use of sodium benzoate ; but I like the phosphate better, because it is laxative and is less foreign to the alimentary tract. In the beginning of the attack, however, the phosphate should be preceded by a course of mercurials. The purpose of the latter is not to stimulate, but to unload the liver ; and the question whether or not mercurials increase the formation of bile does not enter into the discussion. It should be given in small doses, repeated often—one-twelfth of a grain every hour and with a grain or two of soda and a grain of sugar of milk. As soon as the bowels are completely unloaded, stop the mercurials and begin the use of soda on the plan given above. Copious injections of cold water are recommended by some physicians for the rapid relief of jaundice, in the catarrhal form, but I have had no experience with the plan.

COMMUNICATIONS.

HYPNOTISM AND SUGGESTIVE THERAPEUTICS.[1]

BY JAMES H. KING,
MANISTEE, MICH.

Before considering the therapeutics of hypnotism, let us review for a moment its history and classification. Passing over the quackery of the ancient and Middle Ages, we find the first meagre attempt at an explanation offered by Frederick Anton Mesmer, a graduate of medicine in Vienna, who began to use the lode-stone as a cure for disease and explained its influence by the presence of a similar animal magnetism in man. He discovered, however, that the peculiar phenomena produced by his passes of the magnet could be produced by the laying on of hands, force of will, and so forth; and he dispensed with his magnets. His offices in Paris and branch offices in other parts of the country were thronged with patients, eager to be cured of all manner of ailments, real and imaginary. Animal magnetism was the name Mesmer gave to hypnotism, but his own name became closely associated with the condition, and to-day mesmerism is the name most universally employed to designate these peculiar nervous phenomena. Mesmer seems to have been chiefly actuated by a desire to enrich himself from the purses of a credulous public and made no scientific study or explanation of the peculiar nervous disturbances he induced. It remained for James Braid, of Manchester, England, to lift the veil of quackery from the statue of hypnotism. He began his studies in 1841, by attending the *séances* of La Fontaine for the purpose of exposing his impositions. He became convinced that it was not all imposition. He then tried to hypnotize a friend, his wife and a servant, by making them stare at a bright object placed above and two inches away from the root of the nose and was successful. Various experiments with these and other patients convinced him that the condition was not induced by the same power, fluid or magnetism within himself, but by a disturbance of the nervous system induced by the unusual strain put upon the muscles of accommodation and the optic nerve. He found that the sleep varies in different persons and in the same person at different times, from a very light sleep to deep coma or convulsion. He found that while subjects were hypnotized they obeyed his commands like an automaton. "One can play," said he, "on the sleeper as on a musical instrument and create dreams in their imagination that they accept as reality. In order to produce illusions and hallucinations you need only to declare in a loud voice and in a commanding or persuading manner, the thought, picture or sensation that you wish to call up in his mind." Suggestion is the term now technically applied to this "playing on the sleeper" that he so gragraphically describes. To illustrate: You place the patient in the attitude of death and he has solemn or fearful hallucinations; you place his lips in the position of kissing, and he has lovely apparitions. Tell him in a loud voice that his black hat is bright red and he sees it red, until you suggest that his hat is black, when the hallucination that it was red fades instantly. Though Braid's theories were correct, they received little endorsement from the medical profession. In France there were a few scientists who were alive to the importance of the subject, and, despite the criticism and ridicule of the profession at large, continued to experiment with it. Among these were Professor Azam, of Bordeaux, who published the result of his experience in 1860. Velpeau and Borea had used it successfully as an anodyne in surgical operations. Then followed the experiments of Professor Lasgue (1865), Liebault (1866), who demonstrated the value of hypnotism as a curative agent and as a means for improvement of character, morals and education. Investigation now became more general among men of high standing in both Germany and France and more or less throughout the Continent. Richer, Richet, Azam, Regnard, David, Dumont, Pallier, Cullerre, Hack, Tuke, Sapilli, Tamburrinni, Giessman, Obersteiner, Charcot and many others are the more recent experimenters and authors. Since 1886 a strictly scientific journal, *Le Revue de l' Hypnotisme*, has been published in Paris. With this short review of its history we will proceed with the study of hypnotism.

Susceptibility. There is a popular belief that but a comparatively small percentage of persons are susceptible to hypnotic influence. Liebault's experiments prove that about 90 per cent. of men and 94 per cent. of women are more or less susceptible. Children are

[1] Read before the Michigan State Medical Society, June, 1890.

more easily hypnotized than adults. The difference between the susceptibility of men and women is, as shown above, very little. The people of warm climates are more susceptible than those of cold. They are hypnotized in less time and the sleep is said to be very deep. Susceptibility seems mostly to depend upon the willingness of the patient and his faith in the hypnotizer. The methods of producing hypnosis are almost as numerous as the men who produce it. The most common method is that of Braid, already mentioned: having a patient stare at some bright object, so placed as to converge the eyes strongly. Passes, a simple command, "Sleep!" then striking a gong, simple and continuous pressure on the eyelids, staring at the eyes of the hypnotizer, etc., are some of the many methods. A traveling lecturer, whom I once saw, produced very satisfactory somnambulism by a sort of beckoning motion of the arm and by staring into the eyes of susceptible persons. He drew several from the rear end of a large hall with as much apparent readiness and as irresistibly as though he had a ring in the nose and a line attached. The oftener the patient is hypnotized the easier it is done. Perfect quiet or soft, monotonous music, soft light, perfect rest of the muscles, all aid in inducing sleep.

De-hypnotizing. Awaking the patient is also variously performed. The most common is to blow on the eyes or forehead, the simple command, "Awake!" dashing a few drops of water on the face, pressure on the ovaries, etc. The gentleman I saw simply tapped them on the shoulder and said, "Right!" The change was instantaneous. Blowing an one side of the face often awakens only that side, leaving the other side hypnotized, making one-half of a person a stranger to himself.

Stages of Hypnotism. M. Charcot divides the degrees of hypnotism into three: 1. The cataleptic, in which the patient becomes motionless as a statue, eyes open and staring, the limbs retain any position given them, no matter how tiresome and unnatural. A certain amount of vision and hearing remain; so that the patient is susceptible to suggestion, though not highly so. He is insensible to pain. 2. The lethargic state, in which the body is limp as though paralyzed, eyes wholly or partially closed, not susceptible to suggestion, with complete insensibility to pain. Lethargy can usually be converted into catalepsy by holding open the eyelids, and *vice versa* catalepsy can be converted into lethargy by closing the eyelids with gentle pressure. 3. The somnambulistic state. "You see her eyes are open—aye, but their sense is shut." In this condition the senses are often stimulated in a marked degree. Eyes are sometimes open, but more often closed or half closed. In this state the patient is highly susceptible to suggestion. There is hardly any limit to what the somnambule may be incited to do as we have probably all seen demonstrated by traveling hypnotizers.

Physical Effects of Hypnotism. The physical effects of hypnotism can be referred to only briefly in a paper of reasonable length. The increased acuteness of the visual, olfactory and other senses is sometimes bordering on the miraculous. Toquet exhibited a patient before the Medico-Psychological Society of Paris, who could see the image of objects reflected in a piece of pasteboard as readily as in a looking-glass. The value of coins, the faces of friends were all recognized as readily as in a polished mirror. In this patient the sense of smell was also greatly increased. A card was handed her of which she smelled, it was then torn up and hid in an adjoining room, under the furniture, in the pockets of spectators and similar places. Given a piece of the card she was told to find the remainder. She sniffed at it several times, then ran into the other room and began to search for the pieces of card where they were hidden, passing over those places where it was not. She would come to one who had a piece of card and ask for it, but if he denied having it she would attack him, shrieking and striking him until he gave it up. When other pieces of card were handed her similar to those which she sought, she would smell of them and then throw them aside, and she persisted in her search until the right ones were found. This, of course, was an extreme case, but the senses of sight and smell are frequentlyabnormally acute in the somnambulistic state.

Hyperæsthesia of the skin is very marked in the somnambule. The faintest current of air is usually appreciated by him at the same time that sensibility to pain is diminished or even absent. However, it would seem that sensibility or insensibility to pain depends more upon the influence of the hypnotizer than upon the true nervous susceptibility of the somnambule. In fact it seems to me impossible to determine how much the patient displays of his own feelings and

how much the feelings of the operator. He, for the time, is but a human machine, subject entirely to the control of the operator. He feels largely what the hypnotizer would have him feel, and is insensible to that of which he would have him insensible. For instance, to prove the conduction of thought through space, the hypnotizer goes into an adjoining room and burns himself on the wrist with a red-hot iron, leaving an observer in the room with his patient to watch the result. Instantly the patient clasps his hand on his wrist with an exclamation of pain, and in a few hours a bad blister, similar in size and appearance to the one actually made by the hypnotizer on his own wrist, appears on the wrist of the somnambule. Again to prove that the somnambulist is insensible to pain, the hypnotizer pricks him severely with a pin, to which the somnambule pays no attention. Query: Would the patient feel the pin if the operator wished to prove sensibility instead of insensibility? My impression is that he would. Our patient is so completely lost in his hypnotizer, as long as he is susceptible to suggestion, that the experiments seem to me to satisfactorily prove what he, in his own personality, is cognizant of, for he has no personality. He is, for the time being, a part of his hypnotizer and has no individuality. It is this mental passivity which renders it possible to make impressions upon the brain cells of the hypnotized, permanent in their effects, and often curative in their results.

Such acute hyperæsthesia as the somnambule often displays, seems to me, to be irreconcilable with complete analgesia. And again, that hyperæsthesia, is it his own, or is it due to mental suggestion from the hypnotizer? I am assuming that we have all read something of the subject, and we know that the hypnotizer may sit in his office and commune with his patient many blocks away. How can we assume, then, that the somnambule ever acts except through the influence of that subtle mental suggestion that we cannot deny the existence of, and that we cannot explain? In the lethargic and cataleptic states, on the contrary, the influence of suggestion is absent, or nearly so; and here we can plainly prove that the patient is insensible to pain. In lethargy the only special sense that remains is hearing, and this is so dull that only loud tones, shouted close to the ear, produce any response. The patient then shakes his head; he cannot answer. In catalepsy the senses are slightly active, but nothing like a keen perception of suggestion is ever present; and here again the evidence seems conclusive that there is no sensibility to pain. Muscular sensibility, however, seems especially active. Any position the hypnotizer gives the muscles conveys its impression to the brain. Flex the arms and double up the fists of the cataleptic and he is in a rage. Extend the arms and spread the fingers and he is in terror. By mechanically exciting the muscular system in the cataleptic, and especially the lethargic state, tetanus may be produced that resembles the tetanus of hysteria. The tetanus spreads rapidly from one set of muscles to another, and this experiment is often cruelly and dangerously displayed by the traveling mesmerist who produces such a rigidity of the muscles of the subject that he lies with his feet on one chair and his head on another, while the showman sits on his middle. The tetanus is removed by exciting the opposing muscles.

Lethargy and catalepsy have little practical therapeutic value. They are interesting chiefly from a surgical standpoint. Extensive operations have been performed without any anæsthetic except hypnotism, but chloroform is a surer anæsthetic and is far easier of application. Hypnotism was used by at least one surgeon, however, before the general adoption of chloroform. Between 1850 and 1860, Dr. Esdaile, of Calcutta, performed 600 operations on hypnotized Hindoos, who are very susceptible to hypnotism, and a committee of physicians and surgeons, appointed by the Indian Government, testified to his success. The patients, on awakening, denied that they had felt pain, and usually gave no evidence of suffering during the operation. Somnambulism, on the contrary, from a therapeutic standpoint, seems to open up a wide field to the investigating physician, and promises to become of great therapeutic value. In this state the patient is superlatively active to suggestion. As I have said, he seems to be entirely under the control of the hypnotizer. His will is merged into that of the operator, and opposition, that guardian of man's welfare, forever active in the natural state in all animals, is dormant. This is a wonderful condition. To have the mind of another absolutly under our control, without any desire to rebel, is something of which we can scarcely conceive. The brain cells are open to any suggestion we desire to make, and above all we

can produce the impression while the patient is asleep, and when we awaken him he cannot remember what has been done. He is robbed of the chance to oppose the influence with his will, but the impression on the brain remains, acting on the nervous system, unconsciously to him, yet with irresistible power. Innumerable instances of this might be given from the experiments of those whose words cannot be questioned, and witnessed by so many that the evidence is overpowering, but I will adduce but a few. Bernheim told a hypnotized patient that on the sixth night following the *séance*, the nurse would come to her and pour cold water on her legs. When awakened, she, of course, remembered nothing of this, but on the morning following the sixth night, she complained loudly that the nurse had come in the night and poured cold water on her legs. Bernheim called the nurse and she denied the accusation. Bernheim then told the invalid that it was but a dream that he had given her. "You know how I make you have dreams." But she persisted that the water was actually poured; she saw it and became wet.

Again, a single quotation from Rechet's experiments: "After B. had been hypnotized, I used to say to her, you will return to me on this day or that, at this hour or that. She remembered nothing of this when she awoke, but said of her own accord, 'When shall I return?' 'Whenever you can, some day next week.' 'At what hour?' 'At any hour you like.' With astonishing precision she always returned at the day and hour I prescribed during the hypnosis, although she did not remember anything when she awoke. Once when she arrived she said, 'I do not know why I came now. The weather is terrible. I have company at home. I have been running to get here. I have no time to stay, but must immediately return to my callers. It is too silly. I do not understand why I came here. Can it be by some magnetism?'" Think of a patient running through the rain from an irresistible impulse implanted a week before and of which she was ignorant. And last, but not least, think of the source of income a few hysterics offer to the young physician with a limited practice.

Suggestive Therapeutics. I have adopted the term used by Frederick Björnström to designate the influence of hypnotism on morbid conditions. There is a class of cases that are the very torment of the medical profession; that call the doctor from his bed at midnight, pester him at his office hours and worry the very flesh from his bones, unless perchance it has the opposite effect, and, like Falstaff's grief, "Blows a man up like a bladder."

It is in this dilemma that hypnotism holds out encouragement and often effects a cure where medicine has failed.

Hypnotism is most useful in cases of nervous headache, imaginary syphilis, phantom tumor, and the allied "numb spells, choking spells," and all the other familiar manifestations of hysteria, where internal remedies are almost or wholly powerless, and that usually go the rounds of the profession and at last often only obtain relief at the hands of some Christian scientist to the discredit of the medical fraternity.

A patient suffering from a nervous headache is put quietly to sleep by hypnotism and the irritability of the nervous system is soothed to rest. While in this condition she is told confidently, that when she awakens the pain will be gone. As I have said, doubt is at rest; faith has full play, and the influence on the nervous system is unopposed. The brain has received a lasting impression; and, though when she awakes she is unconscious of it, the soothing influence remains to prevent the return of the irritability and pain.[1]

Hypnotism as an Educational Measure. Liebault claims to have used hypnotism in several thousand cases as a means of stimulating study in dull and lazy school children. He says it has always been a benefit, never has been injurious, and frequently has made an industrious, apt pupil out of a careless and apparently dull boy.

Hypnotism as a Counter-irritant. Causing blood to flow by drawing some smooth polished instrument, as an ivory tooth-brush handle over the skin of a somnambule is an old-time feat. Decided blisters have lately been produced by suggestion, and I will close my paper with one very interesting case.

The experiment was made by Facachon in the presence of Bernheim, Liegeois, Liebault and Beaumis. The subject, Elise, was hypnotized at 11 A. M. She was then told that a fly blister was to be put upon her back. Instead of the blister eight postage stamps were placed on her back, in a situation she

[1] Dr King's paper contained details of a number of cases on record in which hypnotism was used as a therapeutic measure. They are omitted here for want of space.—Ed. Reporter.

could not reach, and a bandage applied. A strip of the same kind of stamps was simultaneously applied to the arm of a hospital patient for eighteen hours without effect. Elise was closely watched during the day, and at night was locked alone in her room, after being hypnotized and assured that she should sleep soundly until seven the next morning. She awoke punctually at seven. One hour after Facachon removed the bandage in the presence of the scientists above mentioned. The stamps had not been disturbed. Beneath the skin was intensely red, but not blistered. It was covered with a dry compress, and at 4 P. M. the spot was photographed, with four or five blisters showing plainly in the picture. After fourteen days the spot was still suppurating. After several experiments of this kind, Facachon conceived that if he could excite the vaso-motor and other nerves sufficient to produce a blister, by suggestion, he should also be able to benumb them sufficiently to make cantharides inoperative. A piece of Spanish fly plaster was cut in three parts. One part was put on the abdomen of a hospital patient, and Elise was hypnotized and one piece put on each arm. Suggestion: the plaster on the left arm will have no effect. The piece on the abdomen of the hospital patient raised a blister in eight hours. The one on Elise's right arm raised one in nine and three-fourths hours, that on the left arm had no effect. Both were left on the same length of time and were from one piece of plaster and applied exactly in the same way. Similar experiments have been made by others, this experiment was made in the presence of these well-known scientists. The girl was carefully watched, and every chance of error seemingly excluded.

SINGULAR MENTAL DISTURBANCE IN A CASE OF GRIPPE.

BY G. W. FUREY, M. D.,
SUNBURY, PA.

An account of the eccentric behavior of a patient with the *grippe* who came under my notice during the late visitation may be of interest to the readers of the REPORTER and useful as a contribution to the history of this remarkable malady.

Walter S., nine years old, had always been a healthy, intelligent and good boy. He was taken down in the usual way with an attack of the grippe on January 1, 1890, but was up and about again in ten days, although he did not resume his former strength. February 2, he suffered a relapse, which began with muscular pains in the body and extremities. Dr. W. W. Moody was then called in and found the boy able to sit on a chair; had no fever, his appetite was poor, he was listless and peevish and preferred to be undisturbed. There were no catarrhal troubles of any kind and none of the organs or viscera seemed specially affected. February 17, facial twitchings were observed, but there were no general nervous symptoms noticed until February 25, when the boy was confined to bed because of exhaustion and a peculiar unilateral chorea.

From this time until May 6, the child's appetite was variable, though generally very poor. He continued to lose strength and flesh, becoming quite emaciated. Before this, at different times, Drs. H. Long and F. L. Haupt had seen the patient and there was no one who had ever seen anything like it before. This was my conclusion when I first saw the boy with Dr. Moody on May 12. For nearly a week he had absolutely refused to even taste anything like food. His mother had "fooled" him, in different ways for a time, but she had exhausted all her ingenuity and was in despair. The boy took his medicine willingly and never complained of its taste, but he was possessed of what was certainly a monomania regarding food and could not be induced to touch even a spoonful of milk. The temperature, tongue, skin and bowels were normal. During the night he slept as regularly and quietly as ever, but as soon as he was awake in the morning he would persist in assuming the prone position, with his face to the left, the right hand closed and drawn up behind the head, his left free in front and his left instep crossed above his right heel. In this unnatural and uncomfortable position, and with his eyes partly closed, he would lie all day. At intervals of every half minute he would utter a short, low-pitched nasal moan, strike with his right hand and, flexing both legs without uncrossing them, give a sudden kick. These were all the choreic symptoms noticeable, except that he either could or would not protrude his tongue. His mind was clear, with an added acuteness that suggested cunningness and, almost, intentional perverseness at times. Yet I believe his refusal to partake of food

was due to some occult neurotic disturbance. As mentioned before, all the organs were normal, there was ability to swallow, digest and appropriate food. He could distinguish odors and flavors. I found a tenderness along the spinous processes from the fifth dorsal vertebra to the occiput, with hyperæsthesia of the parts of the neck, shoulders and back corresponding to the spinal nerves of the same regions.

I advised that food be given him in any manner possible and that he be removed to the country as soon as arrangements could be made, trusting to change of surroundings to effect some kind of a mental change. All medicine was discontinued. A prescription was *written* with solemnity and ostentation. It was written for effect only and the patient was carefully told of its importance and allowed to hear the verbal instructions relating to its careful administration. The prescription, however, was quietly compounded in the kitchen and all the constituents were articles of food. The excipient was an infusion of malted barley; this held cream and beef peptonoids and was medicated only by the admixture of a little licorice. The preparation was put into a new eight-ounce prescription bottle, and marked with appropriate doses upon a prominent, red-bordered label. In this manner the boy was fed until the first week in June, at which time he had been in the country for a week. Then, for no reason that is known, he refused to take anything into his mouth except what he was positive was water.

The case became now well-nigh hopeless. The parents were entirely discouraged and Dr. Moody felt that there was little to hope for. He, however, like the faithful old physician he is, stood by his duty and ordered nourishment, by the nares, to be introduced with a syringe. By forcibly overpowering the child, this *dernier ressort* was followed, doing nearly as much harm as good, the patient becoming more feeble, emaciated and starved, until in the evening of June 21, turning to his little sister, who was eating some bread and butter, he whispered: "give me some of 'at." This was the start. Careful nursing and feeding has since so far restored him to health that he is able to walk about the yard at his home and has lost all the cadaverous appearance of one month ago. He is going to get well again, because he was fed.

The points of the case are few. This was a genuine case of the *grippe*. The disease was purely a neurosis and the story of its manifestations may be of as great interest to others as they were to me.

CÆSAREAN SECTION, WITH REPORT OF A SUCCESSFUL CASE.[1]

BY D. LONGAKER, M. D.,
PHILADELPHIA.

By the growth of the new art and science of abdominal surgery the most venerable[2] of all operations involving the abdominal cavity has assumed a new and growing importance. The successes of individual operators the world over are sufficient proof that this operation can no longer be considered a *dernier ressort*. These successes indicate that this may yet become the most brilliant of all operations, and that its mortality may be the lowest of any which invades the abdominal region.

Prior to the commencement of the last decade the mortality of women operated on ranged from 50 per cent. to 100 per cent. in round numbers.[3] The more favorable results were obtained in American cases, in the rural districts; the worst in the large maternities of continental Europe. When timely operations alone were considered, the results were found much more encouraging, showing a mortality of 25 per cent.[4] The appearance of Sænger's work on Cæsarean section, in 1882, marks the beginning of a new era. Leopold, of Dresden, was the first surgeon to put its suggestions into practice, and saved both mother and child in his first ten operations. A later report[5] shows a loss of two mothers in twenty-five cases, all the children being saved.[6]

Eight of the last ten operations by Philadelphia operators were successful.

By Cæsarean section is meant the delivery of a fetus by an artificial passage, an incision, through the abdominal and uterine walls. In the classical operation there is no mutila-

[1] Read before the Northern Medical Association of Philadelphia, June 27, 1890.

[2] Three successful Cæsarean sections.—*Am. Journ. of Obstet.*, vol. xxiii, p. 225.

[3] Lusk, *Science and Art of Midwifery*, 1885, p. 435.

[4] Harris, *Am. Journ. of Obstet.*, vol. xiv, p. 341.

[5] *Year Book of Treatment*, 1890, p. 241.

[6] *Archiv. fur Gynæcologie*, Band xxxiv, s. 301.

tion, in contradistinction to utero-ovarian amputation, or the operation of Porro. Delivery of the child by laparotomy after rupture of the parturient uterus does not constitute a Cæsarean section.[1]

Gaillard Thomas's operation, laparo-elytrotomy, differs in the two points that neither the peritoneal cavity is entered nor the uterus incised. The operation is done at or near full term.

Cæsarean section is done either for a relative or an absolute indication. In order to clearly understand the meaning of these terms, let us suppose cases. An obstruction to delivery is found in the pelvis, it is impossible to deliver the child alive, its heart sounds are heard; we know, however, that the obstruction is not sufficiently great to render the delivery of the child by the natural passage dangerous to the mother if craniotomy be done. To do a section in this case is to do it under the relative indication. If the child is dead it is out of the question.

Again, an obstruction exists so great or of such a nature as to render extraction after craniotomy more dangerous than the Cæsarean section. Here it would seem evident that but one plan of delivery was to be adopted whether the child were dead or alive. The indication for the operation is absolute.

Leaving out of sight, for the present, the consideration of the question of the justifiability of craniotomy on the living fetus, the decision when not to attempt delivery by the natural passages is still a most important one; for the question will continue to come up under circumstances in which the mother's life and safety alone are our care, because the child is dead. The case of Elizabeth Sherwood[2] illustrates what can be done. Dr. Osborn delivered her through a pelvis measuring less than an inch in its true conjugate diameter! Parallel cases are recorded. The question, however, is not what can be done, but what can be done without endangering the mother's life; for craniotomy, *per se*, should give no maternal mortality. Leopold reports ninety-two cases with no mothers lost. His opinion, that it is safer than Cæsarean section, is entitled to great weight. In the presence of how great a degree of obstruction does this remain true?

[1] Harris, *Am. Journ. of Obstet.*, vol. xiv, p. 856.
[2] Lusk, *Opus cit*, p. 490.

If the case is one of deformity or contraction of the pelvic diameters the question is more easily answered than where the obstruction is due to a tumor in the pelvis. From the danger of laceration of the soft parts, of inflammation and gangrene in the tumor, due to pressure, the nature of the case is relatively more serious, and consequently the indication for Cæsarean section clearer.

In the case about to be reported, one lateral half of the pelvis was occupied by a solid growth. There was no attempt at engagement of the head, in spite of severe expulsive pains which had existed for hours. Under such circumstances it seems safer to consider the indication for a Cæsarean section absolute. The same rule should be observed in contracted pelves, the true conjugate of which is two and a half inches or under. The reason will be evident for this when it is remembered that where the autero-posterior diameter is narrowed to this extent the transverse are also below the normal. The case is one of generally contracted flat pelvis. Delivery through it would be found difficult, dangerous and perhaps fatal.[1] Fortunately the complication of labor by ovarian or uterine tumors is not frequent. It does, however, occasionally occur, and often, I believe, with very serious results. It is to be regretted that reports of cases thus complicated are not more frequent. The reluctance with which fatal cases are reported should not stand in the way. Future reports and investigation may show that the presence of such a tumor is a contra-indication to delivery *per vias naturales*.

On May 26, 1890, I was summoned by my friend, Dr. Swartzlander, of Doylestown, to a case of labor. The patient's history is as follows: Mrs. W., forty years old, was born in Germany. Had borne in all eight children, the last one six years ago. During the last four years she had had three abortions. On Sunday, May 25, at 10 P. M., she was taken in active labor, and the membranes ruptured early in the evening. Dr. Swartzlander reached the patient at midnight. She had severe pains throughout the night. They were not so frequent nor so severe during the morning, and there was slight elevation of temperature by this time.

I saw the patient first at 2 P. M., or six-

[1] Paper by Author, *Am. Journ. of Obstet.*, vol. xx, p. 477.

teen hours after commencement of active labor and about eighteen or twenty hours after the membranes had ruptured. She was generally in a fair condition, a woman of large frame and robust physique. The vulva and vagina were œdematous and dry; a greenish-brown discharge had appeared, as to the nature of which we were in doubt. The right half of the pelvic cavity was occupied by a tumor, closely adjacent to or involving the cervix on this side, and extending over to the lateral wall of the pelvis. Inferiorly the tumor appeared to fluctuate, but when the hand was passed up higher no fluctuation was felt. The os was partially dilated, admitting the half hand. The fetal head was high up and only accessible after passing the fingers of the hand up through the os and above the pelvic brim.

Cæsarean section without delay was advised. Preparations for the operation were begun as soon as the nature of the case had been explained to the patient and her husband, and their consent gained. The fetal heart was still heard just prior to the commencement of etherization. All hands were set to work preparing boiling water, finding basins, pitchers and other necessary utensils, removing furniture and securing more medical assistants. Present at operation were Drs. Kirk and Swartzlander; the former kindly took charge of the etherization and the latter ably aided me in the successive steps of the operation. The incision through the abdominal walls and uterus was speedily made. The latter was first entered by a short incision and then enlarged with scissors, using the finger as a guide. The child was quickly extracted by the feet; no difficulty was experienced with the head. It was not arrested. From the great thickness of the tissues first incised, I feared the placenta was under the anterior uterine wall, but it was not. Hemorrhage was at first profuse. It was arrested by the delivery of the placenta and by pouring water into the uterine cavity. The temperature of the water was about 112° F. Firm contraction was caused in this way. As there was little relaxation afterwards, and therefore but slight bleeding, all the sutures were introduced before any were secured. There were nine deep braided-silk and twenty Chinese twisted-silk superficial sutures. These were passed two between each two of the former. By tying first the superficial ones and then the next deep one inversion of the serous membrane was very perfectly accomplished. The deep sutures were tied more firmly than is the rule when passed into other than uterine tissue. This was rendered necessary by the shrinkage of the tissues within the grasp of the suture. The patient was put into bed with a pulse of 120 and temperature of 99½° F.

Prior to the operation, the vagina had been douched with 1-2,000 bichloride solution, the abdomen washed with same solution and the parts shaved. The wound was dressed with bichloride gauze. A drainage-tube was introduced. It is unnecessary to mention the other details of the operation, as they did not differ in any point from those observed in abdominal work in general.

The child was a well-developed male (since named Julius Cæsar). The meconium had been freely discharged into the uterus. The child was laid on a blanket, and it was ten minutes before there was any respiratory movement. In perhaps twenty minutes the infant was breathing regularly, and at the conclusion of the operation he was crying vigorously to the gratification of all.

On May 27, the day after the operation, I I received the following note: "Our patient looks fairly well this morning; her pulse is 120 and her temperature 99½° F. She vomited a little during the night from the effects of the ether. She took a little hot water. Half a pint of urine was drawn off. The dressing, which was soiled over an area as large as my hand, was renewed. The drainage-tube was removed and the suture tied." On May 29, Dr. Swartzlander wrote: "I saw our patient at nine this evening and found her in a very good condition. Her pulse was 95 and her temperature was 101° F. She was not so well last night and had pains through abdomen, which were relieved by a rectal tube. I use vaginal douche twice daily, which refreshes her greatly. There is considerable lochial discharge. Her countenance is easy, she looks cheerful and there are no signs of peritonitis. I feel confident of success."

June 2. "The patient is still in good shape. Her pulse is 85 and her temperature 100° F. I will give her small doses of hot Hunyadi water with an enema this evening. I will leave the sutures in until after movement of bowels."

June 3, eighth day after the operation. "The patient still looks well. Her pulse is 80 and her temperature 100°. She had a copious stool. I removed the deep sutures this morning. There was a stitch abscess

containing about ½ oz. of pus. The wound otherwise looks well. I think the continued high temperature has been due to the stitch abscess."

This small abscess healed rapidly and there was no further complication. Convalescence was uninterrupted. The child was not applied to the breast, but was fed by the bottle. Both mother and child are at this date—a little over a month since the operation—doing well.

A few words as to the technique of the operation. The most important step is the suturing. Sænger's original plan involved resection of the uterus after dissecting up the peritoneal investment, in such a way that this would fall down between the two sides of the uterine wound, where it was held by the superficial sutures. As this was found unnecessary, the resection has been abandoned. It was found that the peritoneal surfaces could be easily brought together without resection.

The elastic ligature around the cervix was not used. No ergot was given in any form. Uterine contraction and arrest of hemorrhage were secured by delivery of the placenta and by the hot-water douche. The hot water was poured from a pitcher into the uterine cavity. The presence of the sutures appeared to promote the uterine contraction.

This operation cannot be regarded "as by long odds the easiest of all the abdominal operations." If it is to succeed, it must be done without an error in the technique and with expedition. The general practitioner, as a rule, allows the eye surgeon to operate on his cataract cases. The duty of securing special skill is certainly more incumbent in an operation which involves the fate of two beings than it is in one which involves only the danger of loss of an eye. It is not an operation for the inexperienced in abdominal surgery, and the circumstances must be rare indeed in which he would be justified in operating.

What can be said in extenuation of the conduct of two men who, equipped with a pocket-case of instruments, without any skill whatever, undertook this operation in a city in which there are a dozen operators, skilled and ready to operate with reasonable chances of success?

In conclusion, the writer desires to call attention to the necessity of examining, especially primiparous patients, before they are in labor. About six weeks before the end of gestation abdominal palpation and pelvimetry should be done, so that the nature and degree of pelvic obstruction being known, the appropriate operation may be chosen in each case and the ideal of the art reached—mother and child saved in every instance.

So long as this is not done there will occur cases in which it becomes necessary to sacrifice the child's life in the interest of the mother's own safety. After injudicious traction with the forceps the chances of successful abdominal delivery, though the operation be done ever so skilfully, are greatly diminished. I believe the rule under such circumstances should be perforation and craniotomy at once in cases of contracted pelves; the true conjugate being not under 2½ inches. In tumor cases more knowledge is required before any absolute rule can be laid down. Though craniotomy on the living fetus may become necessary and be justifiable, repeated delivery of the same woman by this method is not.

ESTABLISHING TOLERANCE FOR THE TUBERCLE BACILLUS.

BY SAMUEL G. DIXON, M. D.,
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In the *Medical News*, October 19, 1889, I advanced the idea that, to overcome infection by tuberculosis it would probably be necessary to produce a tolerance to the action of the tubercle bacillus and advanced the following hypotheses:

First. It is possible that, by a thorough filtering out of bacilli from tubercular material, a filtrate might be obtained and attenuated, so that by systematic inoculations a change might be produced in living animal tissues that would enable them to resist virulent tubercle bacilli.

Second. To bring about a chemical or physical change in living tissues that would resist tubercular phthisis, it is possible that inoculations with the bacillus would have to be made; yet, before this could be done, the power of the virulent bacilli would have to be diminished; otherwise the result would be disastrous.

I also stated that I had met with success in preventing subsequent susceptibility to phthisis by inoculating animals with what I believed to be an unusual form of the tubercle bacillus, and that I had succeeded

in producing a marked morphological change in this bacillus, doing this by subjecting it to different degrees of temperature, moisture, pressure and changes in food stuffs.

It is quite impossible to state how this immunity was produced; yet it is quite possible that the organisms in the changed forms have not sufficient vitality to live in the animal economy, and, therefore, the only active portion of the matter injected is a chemical product carried in with the bacilli and which is poisonous to the ordinary tubercle bacillus. Or again, it is possible that the organisms themselves are antagonistic to the bacillus of Koch. It is also possible that this unusual form of bacillus produces, when in the animal economy, that which kills the tubercle bacillus. Or, we can believe it possible for this new form to consume that from the animal tissues necessary for the existence of the tubercle bacillus, and by a different metabolic process to form a product non-poisonous to animal life.

From the fact that we all inhale tubercle bacilli daily without contracting phthisis, except in odd cases where there is a predisposition or where a great number of bacilli are taken into the system, we are inclined to believe that a change, either chemical or otherwise, must take place in the normal tissues before we can contract the disease. If this be so, we must aim at correcting that change, and it seems within the range of possibilities that such a correction might be brought about by a chemical substance or by stimulating the tissues by micro-organisms, harmless in themselves either through their degree of vitality or their kind.

Be this as it may, it will probably be interesting to the scientific world to know that the results published last October have been uninterruptedly corroborated by a series of inoculations of the prepared virus into guinea-pigs, rabbits and opossums, after which they have resisted matter so virulent that all animals not previously inoculated with the changed virus took on tuberculosis when inoculated with it.

August 29, 1890.

—The digestibility of starch is greatly increased by prolonged cooking, says Dr. N. Butiagin, and since the ptyalin value of saliva is diminished by disease, starchy foods for invalids should be well boiled, in his opinion, three or four times as long as ordinarily.

HOSPITAL NOTES.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

SERVICE OF DR. ROBERT W. TAYLOR.

Unusual Source of Syphilis.

The first case was of peculiar interest owing to the unusual manner in which the patient had become infected with syphilis. She was a married woman, twenty-four years old, who had a healthy child, and who gave no evidence of being syphilitic before her admission to a hospital ten months before. She had been married four-and-a-half years, and was admitted because of some ovarian trouble. Laparotomy was performed, and about one week later, at the time of the first dressing, the strips of adhesive plaster were torn off from the skin of the abdomen rather rudely, leaving a raw surface. This surface, instead of healing, became more and more irritated and unhealthy looking, and after about seven weeks, other sores broke out upon her body. She was in the hospital altogether about six weeks. At the present time, there was a circular eruption, which, from the incrustation, color, and slight amount of scaling, was presumably syphilitic. Upon the buttocks and lower extremities were other patches, those on the thigh showing a tendency to inflammation, owing to the presence there of varicose veins. The whole case presented a typical syphilitic physiognomy, and the eruption was, in the main, a papular syphilide. The infectious material was conveyed to the raw surface left by the plaster, either by instruments, the plaster, or by the hands of the dresser. The case taught an important lesson as to the care that should be exercised by the attendants upon the sick, to prevent such accidents. Dr. Taylor said it recalled to his mind a case in which a medical friend touched a slight excoriation on the glans penis with a short piece of nitrate of silver, which was worn down to the level of the silver caustic holder. The patient shortly afterwards developed syphilis, and the history of the case made it very probable that the source of infection was this caustic holder. All such applications should be made by means of wooden tooth-picks, covered at their ends with cotton, which are used only once.

This patient was taking one-third of a

grain of the protoiodide of mercury with iron and quinine and hyoscyamus, according to the formula already given. The crusts should be removed from the excoriations, iodoform dusted over the surface, and a bandage applied. The papular patches would be rubbed three times a day with mercurial ointment, and wherever possible, a plaster consisting of equal parts of mercurial and zinc ointment would be kept constantly applied.

Miliary and Papular Syphiloderm.

The next patient was a woman presenting a typical picture of the small miliary papular syphilide. She had had the disease about five months, and the present eruption was a relapse. This lesion was peculiar in the fact that it was very prone to undergo certain inflammatory changes causing infiltration, and the exudation of serum, which, finding its way upwards to the apex of the lesion, gave rise to a vesicular appearance. There had been much dispute as to whether vesicular syphilis ever existed: this case showed the only way in which it was ever found, *i. e.*, as an accidental complication. It might also occur with the large papular syphilide. Sometimes the contents of these vesicles became cloudy from admixture with leucocytes, and pustules were formed, and were due to the introduction of microbes. These lesions were to be distinguished from the pustules which belonged to the syphilitic process, and were therefore not of extraneous origin. This case was still further complicated by the presence of a seborrhœal inflammation of the scalp and face, shown by the presence of brownish and yellowish crusts in the former situation, and gummy oily crusts matted together on the forehead. This eruption plainly occupied the classical site of such syphilitic eruptions on the face, *i. e.*, a wedge-shaped area from the centre of the forehead to the glabella, then in the form of a mustache, passing from the nasal alæ to the labial furrows. In the localities where the sweat follicles were abundant, coincident with the development of syphilis, one would find sebaceous matter thrown out sometimes in such abundance as to obscure the typical lesion. In addition to the lesions already mentioned, this patient presented a typical but declining iritis. Dr. Taylor said that iritis was more commonly found in connection with the miliary syphilide than the other forms of syphilitic eruptions.

The case was interesting as bringing out several useful therapeutic points. The seborrhœa of the scalp could be cured by thorough cleansing, and then washing with a 1-2,000 solution of the bichloride of mercury. On the face good results would follow the use of the following ointment:

℞ White precipitate . . . Twenty grains
Zinc ointment,
or Lassar's Paste . . One ounce.

Daily inunctions of twenty grains of mercurial ointment should be given, always remembering that a thorough cleansing of the part with warm water, previous to the application of the ointment, softens the epidermis, quickens the circulation, and promotes absorption. In addition to these measures, the patient should receive iron and quinine, with plenty of good food and fresh air.

Iodic Purpura.

Dr. Taylor then presented a man, twenty-eight years of age, who had a mild form of the purpura induced by the administration of iodide of potassium. The eruption generally consisted of round and oval spots, the size of a pin's head or a little larger, which were not blanched by pressure, and which were due to true hemorrhages under the skin. The eruption was most commonly found upon the legs, but sometimes on the forearm and neck. Another point of interest in this case was a hyperplasia of the whole thickness of the mucous membrane and epithelial structures about the mouth, following mucous patches. This man had been a hard smoker, and had been accustomed to carry his pipe on the side of the mouth where the lesion was most pronounced, and this was usually the case.

As the mouth was sore and liable to be disturbed by the administration of mercury by this channel, the lecturer advised the use of inunctions and of a gargle consisting of eight grains of the bichloride of mercury and one-half ounce of the tincture of myrrh to eight ounces of water. If we expected to cure this case, it was absolutely necessary to get rid of the thickening of the mucous membrane. Very many cases of epithelioma of these parts began in such syphilitic hyperplasias. In order to reduce the inflammation, the patch should be painted with tincture of iodine three time a week, and if this were not sufficient to wither up the epithelial hypertrophy, it should be very carefully touched with liquor potassæ or perhaps

with Paquelin's cautery. These cases demanded active, intelligent and persistent local treatment.

Syphilis and Gonorrhœa.

Dr. Taylor introduced the next patient as one who bore many of the scars of Venus upon him, and the statement seemed justifiable in view of the fact that he had a hard chancre of the penis of ten weeks' duration, with balanitis and gonorrhœa of more recent origin; and, in addition to these, a general and copious eruption, in some parts a papular syphilide, and in others a roseola. This latter circumstance showed that the roseola was often only the forerunner of a papular syphilide, and that both were but different stages of the same syphilitic process. The eruption on this patient's forehead and face presented the typical syphilitic facies; and in localities which were subject to pressure and friction, as on the sides of the abdomen and thorax, the papules were larger and of a deeper color. For a similar reason the eruption would be unequally developed on lower parts of the body, depending upon the patient's habitual position.

In considering the question of treatment, it was important to remember that the lesions exhibited by this patient showed that his system reacted exuberantly to the syphilitic poison, and in marked contrast to the woman presented to the class just before. This meant that the treatment should be prompt and vigorous. In addition to tonics and the regular course of inunctions with blue ointment, this man should receive one-third of a grain of the proto-iodide of mercury three times a day. Smaller doses than this were entirely inadequate, and unnecessarily procrastinated the cure. Dr. Taylor said that the medical attendant should be firm in advocating the employment of inunctions, notwithstanding the objections urged by the patient against their use; and in private practice, except upon the face, he employed the blue ointment. A more suitable application for the face was Lassar's paste, to which is added twenty grains of white precipitate to the ounce. The oleates were not reliable, and on this account he did not advise their use.

Tinea Tonsurans.

Dr. Taylor then showed a man who five months before had noticed a scaling patch develop on his face shortly after being shaved by a barber. This man, the lecturer said, undoubtedly had ring-worm in the nodular stage, and the nodules were the result of the inflammation caused by the trichophyton tonsurans burrowing down into the hair follicles. A patch was found near the angle of the jaw and on the left side, but the cheeks and chin were not affected. This was not at all uncommon. The long duration of the disease excluded sycosis and abortive furuncles; and in addition to this, the former disease was not accompanied by so much brawny nodulation, and if it were the latter disease, there would be evidence of suppuration. The affected parts were red and scaly; the hairs were dull and lustreless and showed a tendency to break off.

The parts should be bathed with very hot water and soapsuds, a solution of cocaine applied and the hairs methodically epilated. After this, a solution of bichloride of mercury, two to four grains to the ounce, should be applied, and excessive inflammation combatted by the use of zinc ointment. The beard should be kept quite closely shaved, and epilation resumed upon the first appearance of a red spot around a hair.

Foreign Correspondence.

LETTER FROM BERNE.

Fluorescin as a Means for Diagnosticating Ulcers of the Cornea.—Pyoktanin as an Antiseptic. — Trephining for Meningeal Hemorrhage.—Ivory Radius. — Iodoform in Fumigating Arthritis and Parenchymatous Goitre.

Professor Haal, of Zurich, warmly recommends the instillation into the eye of a two per cent. alkaline solution of fluorescin as a simple, safe and thoroughly reliable means for determining, first, whether the epithelial lining of the cornea is intact or absent; and, second, whether a corneal ulcer has healed (that is, has become covered with new epithelium) or not. As physiological and clinical experiments have shown, a normal or intact cornea is not dyed by the coloring matter of fluorescin, the membrane becoming stained only in the presence of epithelial defects.

As to the pyoktanins ("pus-destroyers") —blue and yellow aniline dyes, recently introduced and patented by Professor Stilling

as antiseptics of an extraordinary power—Professor Haal has found that, in cases of corneal serpiginous ulcers, they are by no means superior to other ordinary antiseptics, such as chlorine water, corrosive sublimate, iodoform and thermo-cautery. In one of his cases of this kind, blue pyoktanin (methyl violet) caused serious suppuration of the cornea. Meanwhile, Dr. Oscar V. Petersen, of St. Petersburg, who tried Merek's blue and yellow pyoktanins in forty-eight cases of pannous keratitis, irido-cyclitis, gonorrhœal ophthalmia, conjunctivitis, soft and hard chancres, etc., arrived at the conclusion that the substances possessed a most pronounced antiseptic action, while being free from any toxic or disagreeable effects. He used the dyes either in the shape of powders (1 part of pyoktanin to 2,000 parts of talc), or in aqueous solutions (1 to 2,000, 1 to 100), or pencils (made of pure pyoktanins).

To verify the patentee's statements, Dr. M. Jakowski, of Warsaw, has carried out a long course of elaborate bacteriological experiments with the bacillus of anthrax, staphylococcus pyogenes aureus, typhoid rod and Friedländer's microbe of pneumonia. While, on the whole, confirming Stilling's results, the author draws attention that *pyoktaninum cœruleum* acts by far more energetically than *pyoktaninum aureum* (auramin). At all events, the latter destroys the anthrax microbe more easily than the bacteria of suppuration (staphylococcus). Meanwhile, when blue pyoktanin is added to a cultivation medium (jelly or agar-agar) in the proportion of 1 to 5,000 or even 1 to 10,000, none of the bacteria experimented upon can grow either at the ordinary room temperature or at that of the body.

International literature on pyoktanin has been of late growing at a rather alarming rate. It abounds already in most contradictory assertions. It is worth mentioning that Dr. Roeloffs, of Leipsic, happened to observe (in 5 out of 15 cases) eczematous rash around wounds treated with the aniline dyes, while Dr. Carl, of Vienna, saw a distinct aggravation in a case of corneal affection, and Dr. Brauneschweig met with several instances of an intense croupous conjunctivitis following the use of pyoktanin.

Professor Kroenlein, the distinguished surgeon of Zurich, presented to the recent thirty-ninth yearly meeting of the Schweizerischer Aerztlicher Centralverein a brilliant case of surgical interference for cerebral injury. A man fell on his head, the accident being followed in a quarter of an hour by coma, vomiting and other manifestations of increased intra-cranial pressure. On examination six hours later, the patient's skull proved to be intact. The absence of any depressed fracture, the presence of the pressure symptoms and the important fact that the latter had made their appearance after a certain free interval, led to the diagnosis of an intra-cranial hematoma caused by rupture of the middle meningeal artery (on the right side). Without any delay, trephining at the corresponding spot was performed and hemorrhage (the artery still continuing to bleed) arrested by plugging with iodoform gauze. In two hours the patient's condition markedly improved; in six hours he became conscious; in five weeks he was discharged in the best of health.

The same Swiss surgeon showed a remarkable case of excision of the lower third of the radius (on account of myelogenous sarcoma of the bone) in which the remaining gap had been filled up with an artificial ivory radius. The latter had become united and fixed in a reproachless manner, the limb retaining its normal usefulness. Professor Kroenlein adds that he is about to insert a similar "inner prothesis" or "permanent inner splint" in another case where the whole radius has been removed.

Dr. Boehny, of Stein-am-Rhein, highly eulogizes the treatment of fungating arthritis by intra-articular injections of a 7 or 8 per cent. solution of iodoform in oil of sweet almonds. The injections are said to be borne by patients in a "splendid (*brilliant*)" way and are followed by "excellent (*vorzüglich*)" results. To prepare the solution, the oil should be first sterilized by heating in an oil bath, and after it has cooled down to a lukewarm condition the necessary quantity of iodoform should be dissolved therein. The fluid resulting is perfectly clear and has a more or less brownish tint.

The same solution may be also employed for subcutaneous or interstitial injections into parenchymatous goitres. Dr. Boéchal, of Bonfol (Canton Berne) who has been the first to recommend (in 1880) the iodoform treatment of goitres, used an ethereal solution of the drug. He was aware, however, of occasional irritant effects of ether and from the beginning expressed his wish to discover some more suitable, namely, blander vehicle.

Recently, Dr. E. Haffter, of Frauenfeld, the editor of the *Correspondent-Blatt für*

Schweizer Aerzte, has drawn attention that olive-oil, when saturated with camphor, can dissolve up to 6 per cent. of iodoform, and that such solution may be conveniently employed for parenchymatous and intra-articular injections of the drug.

VALERIUS IDELSON.

PERISCOPE.

Prevention of Phthisis.

Dr. Maurice D. Clarke in the *Popular Science News*, July 1, 1890, says that the question, "What Can and Should be Done to Limit the Prevalence of Tuberculosis in Man," formed the subject of a discussion at a recent meeting of the Association of American Physicians, the principal paper being contributed by Dr. Edward O. Shakespeare, of Philadelphia. It was now generally admitted, the writer stated, that tuberculosis was an acute infectious disease due to the bacillus tuberculosis of Koch. It was essentially non-hereditary, though a weak and enfeebled system may be inherited, thus rendering a person more susceptible to the disease or less able to throw it off. In view of the admitted inefficiency of all present modes of treatment of actual cases of tuberculosis, effective prophylactic measures are infinitely more important to the general public, and should also be to the physician, than the most skilful therapeutic measures, in real efforts to limit markedly the enormous mortality due to tuberculosis. Since analysis of the fullest records bearing upon the relation of family history to the causation of tuberculosis could possibly account, through hereditary predisposition, for little more than one-fourth of the cases, the most perfect measures conceivable for the lessening of that influence cannot be rationally compared in importance to those which are essentially based upon the destruction of an infected poison which is virulent enough to produce the disease, not alone in this comparative few who may be born with hereditary predisposition, but also to cause tuberculosis in the majority who succumb, notwithstanding the absence of an hereditary weakness. While the discovery of this bacillus has little advanced the treatment and cure of tuberculosis, it has revealed most important principles upon which to base efficient means of preventing the spread of the disease. In the prevention of tuberculosis the following principles formed the basis of an efficient system: (1) With regard to those already diseased, effective preventive measures should look to the rapid destruction of the tubercle bacilli in the excretions and secretions of the affected, and by little as possible prolonged close association of the well with the sick. (2) With regard to those liable to become infected, nothing which may contain the living tubercle bacillus should be permitted to enter the digestive apparatus. Rigid inspection of meat and milk is a necessity. (3) Tuberculous subjects should not be admitted to hospital wards in which those with other diseases, especially of the lungs, are confined. In general hospitals, consumptives should be assigned to special consumptive wards. (4) Special hospitals for the treatment of consumption should be established.

Dr. Trudeau, of Saranac Lake, spoke of the decrease of the number of cases in England resulting from proper separation of consumptive patients and the care of the sputum.

Dr. Johnson, of Chicago, speaking with reference to the practice of sending patients with consumption to certain Western localities, said he preferred sending them to some place where they were practically isolated from others suffering from the same affection, and to some desert spot where vegetation was scanty and the conditions for increase in bacillary growth unfavorable.

Dr. Ernst, of Boston, related the circumstances of a case which had lately come to his notice, showing how rooms might become infected and be the cause of extending the disease to others, in whom family and personal history were perfect. An early diagnosis of tuberculosis could be made only by finding the characteristic bacilli on microscopic examination. The treatment is more favorable if an early diagnosis is made.

Dr. Bridge, of Chicago, said that in a few weeks signs could generally be found in the chest, but that the time for treatment that would avail, was in the interval before physical signs could be found and hence the importance of a microscopic examination of the sputum.

Use of Pepsin and Pancreatin.

In a good article on Digestive Compound in the *Druggists' Circular*, August, 1890, Dr. Alfred Eichler says: In regard to pep-

sin it is well known that its action is best shown when given in solution and aided by liberal doses of muriatic acid; it should be taken immediately after eating. Pancreatin should be given at least three hours later, when stomach action has ceased and the amount of acid in the stomach been reduced to a minimum; it may be accompanied by a small dose of bicarbonate of soda, thus preventing the gastric juice from rendering it inert. Diastase is hardly ever needed when food is well cooked and chewed.

It is easily seen that aids to digestion may be prescribed "physiologically correct," and that they can be administered without jumbling all known ferments together and giving the compound at random. To the contrary, it will be to the interest of every physician and pharmacist to inform themselves thoroughly on this subject and then let medicine only act as an aid to nature.

With but little care, all digestive ferments may be given in a very agreeable form. Pepsin can be dissolved with muriatic acid and water, to which may be added glycerin in sufficient quantity to sweeten and preserve the mixture, with perhaps a little compound tincture of cardamon to flavor. Pancreatin may be taken as a pill or powder, preceded by a draught of some alkaline mineral water, to which a quantity of bicarbonate of soda can be added if deemed necessary. For diastase can be substituted various malt liquors and extracts of malt; they should be taken at the beginning of a meal.

This plan of treating disorders of digestion will compel us to arrive at clear views regarding what stage or what form of indigestion we wish to remedy. It will require precision of diagnosis, only to be attained by observing the physiological functions of the digestive organs; when we do arrive at this result, our success will be certain.

Bacteria of the Soil.

The *British Med. Journal*, June 21, says: After very careful and extensive examination of the soil of Jena and its vicinity, by C. Fraenkel's method, Dr. Reimers comes to the following conclusions: 1. The number of germs in the upper layers of soil is not so great as many observers have stated, not exceeding in sand a few millions in each cubic centimeter. 2. Down to a certain depth the number remains relatively high, after this it becomes much lower. 3. Still lower the germs diminish altogether suddenly, as Fraenkel has already shown. 4. The zone of sudden diminution lies in Jena, as in Berlin, between one and two meters deep. 5. The exact position of this zone depends on the state of the ground; in disturbed ground it is deeper than in virgin soil. 6. Even at a slight depth (two meters) the soil may be germ-free. 7. Germs taken from the surface, or near it, show quicker growth than similar germs from deeper layers. 8. This last fact shows that the conditions of life are not so favorable lower down in the soil. 9. The ground water at moderate depths was found both with and without germs. 10. In one series of cases the ground water showed no influence on the regular diminution of germs; in another series it was favorable to them. 11. Burial grounds made no difference to the germ-contents of the ground; neither beside nor underneath coffins was any increase in bacteria found. 12. Samples of earth from a grave thirty-five years old and from another one year and a half old, also showed no increase. The last two results, the *British Med. Journal* says, are somewhat surprising, and, if true, are of great importance from a national hygienic point of view.

Rupture of Vagina in First Coition.

The *Annals of Surgery*, May, 1890, publishes an account, from a Russian journal, of a previously quite healthy, newly-married young Hebrew woman, 23 years old, of middling size and make, who applied to Dr. Sinaisky, of Slutzk, Russia, on account of pain on walking and defecation, which symptoms had appeared after her first marital intercourse two days previously. She added that the coition had given rise to an excruciating local pain and profuse bleeding, causing her to faint. The examination showed that the woman's external genitals were developed quite normally, and that the hymen (of a semi-lunar variety and a moderate thickness) was intact. On separation of the labia majora the posterior commissure proved to be lacerated, the wound forming a funnel-shaped cavity admitting freely two or three fingers and communicating with the rectum just above the anal sphincter; the vagina contained

fecal gases and matter. There was also present a total rupture of the perineum running along the raphe, but involving only the skin and sub-cutaneous cellular tissues. The husband was a man 23 years old, possessing a large-sized member, but no knowledge concerning marital business; at least he stated that he had never yet had intercourse with women until the present occasion. Since the couple most emphatically declared that neither of them had introduced finger or any foreign body into the woman's genital tract, and since all their statements seemed to be altogether trustworthy, Dr. Sinaisky arrives at the conclusion that the lesions were inflicted solely by some violent and wrongly directed pressure of the inexperienced young man's powerful and stiffly-erect penis against the base of the hymen, the woman, possibly, lying in some inappropriate posture. The violence might be intensified by virtue of the attempt at coition being undertaken with retracted prepuce, the young man being a circumcised Hebrew.

Treatment of Pulmonary Tuberculosis.

Dr. Albert Abrams, in the *Occidental Medical Times*, August, 1890, says: Dr. Brehmer, of Görbersdorf, is an earnest advocate of treatment of pulmonary tuberculosis in a private institution, which should be situated in the mountains, a site favoring the heart's action through diminished atmospheric pressure, and improving nutrition by increased appetite. The site should also possess immunity from consumption. The institution must be protected from winds, which, in the language of the writer, "is poison for consumptives." Patients are allowed unlimited exercise in the open air, but must upon the least fatigue seek rest until recuperated. The nutrition of the patient is of great importance. Anorexia is combatted by sojourning in high altitudes. He provides his patients with five meals daily, the object being to distribute the task of gastric digestion. Vegetables occupy a prominent place in the dietary, for in anorexia they are more palatable than animal food. Fatty food must also be consumed. Each patient drinks on an average 1½ litres of milk, which in cases of protracted anorexia is increased to four litres a day. He introduced wine in the treatment of pulmonary tuberculosis because it increases and strengthens the cardiac contractions and economizes nutrition. The use of cognac when continued for a length of time, conduces to unfavorable results. In the symptomatic treatment the dry, irritative cough is controlled by psychical influences, the drinking of cold water or by drinking hot milk with seltzer water. Morphine is indicated only when the cough is attended with expectoration and interferes with sleep. Inhalations are not considered. Moderate hemoptysis is controlled by injections of morphine, the ice bladder to the cardiac region and milk diet. Eventually ergotin is used. Sesquichloride of iron is mentioned as absolutely inert. When the hemoptysis is severe, energetic coughing is at times necessary in order to dislodge the accumulated blood in the bronchi, and thus avert suffocation. If this prove insufficient, the finger is introduced into the larynx and the coagula are removed. When weakness supervenes with increasing dyspnœa, champagne is administered as a stimulating expectorant. Fever is combatted with 1 to 2 wine-glasses of Hungarian wine and an ice bladder placed over the cardiac region. If the fever persists, then antipyrin and antifebrin are employed. Night-sweats are controlled by the ingestion of a glass of milk containing one or two teaspoonfuls of cognac.

Picric Acid for Impetigenous Eczema.

The *Deutsche Medizinal-Zeitung*, July 7, 1890, contains a report of the experiences of Dr. F. Cerasi with picric acid in the treatment of impetigenous eczema. Cerasi's experiences extend over a period of ten years. He has tried the drug in various cutaneous affections, but at present only reports its value in seven cases of impetigenous eczema. Cerasi lays great stress upon the purity of the drug. The drug as found in the market is almost always impure. Only pure picric acid will dissolve in ether and benzine.

The impetigenous eczema of children is a most painful affection and gives rise to a disagreeable odor. The disease owes its origin principally to faulty nutrition, damp dwellings, and scrofula. The disease usually attacks the head and face, and appears in the form of yellowish crusts which are firmly attached to the skin.

Picric acid was applied locally, and other remedies were given internally in order to

improve the constitutional condition of the patient. In the seven cases in which the drug was tried, a complete cure was effected within nineteen days.

The treatment employed was as follows: The crusts having been removed, small compresses, moistened with a weak solution of picric acid, are applied several times a day. The solution is composed of five or six grains of picric acid dissolved in ether with two and one-half ounces of lanolin. Of late Cerasi has been using creolin as a solvent, with the addition of one-half per cent. of water. After a few days of this treatment a stronger solution is substituted; from seven to fifteen grains of the acid, dissolved in ether with five fluid ounces of rose water. No symptoms of poisoning were observed to follow the use of the drug.

The Treatment of Chlorosis.

Dr. Huchard who is probably better known than any other physician in France as an authority on diseases of the chest and circulatory organs, publishes the following formula for the treatment of chlorosis, which we quote from the *Medical Press and Circular*, July 9, 1890.

℞ Lactate of manganese, ... ℥ iiis
Extract of cinchona, ... ℥ iiis

For 100 pills. Sig. 3 to 6 daily.

℞ Arseniate of soda, ... 1 gr
Water, ... f℥ x

Two tablespoonfuls daily during meal-time.

As chlorotic persons suffer constantly from indigestion on account of the insufficiency of hydrochloric acid in the stomach, Dr. Huchard recommends the following syrup:

℞ Hydrochloric acid, ... gtt. xxx
Syrup of bitter orange, ... f℥ i
Water, ... f℥ iv

Sig. One tablespoonful immediately after the two principal repasts.

Lunacy and Death.

The *American Analyst*, August 7, 1890, says that Dr. Giacchi, of Turin, in writing on the manner in which lunatics die, observes that often lunatics present in the latter periods of their unhappy existence a surprising metamorphosis. A notable number of acute or chronic lunatics and even demented subjects who for some reasons have been incapable of reasoning correctly, miraculously recover on their death-beds full consciousness of themselves. They die conscious, and often placidly and serenely, as much and even more so than persons of sound mind who succumb to the same malady. Often, in the few days which precede death, one finds in the one as well as in the other, sane and insane persons, a complete inversion, particularly when life is extinguished by the aggravation of chronic maladies of the abdomen or of the chest. Thus, while the phthisical subject or patient affected with chronic diarrhœa at its last stage is often in a state of mental aberration, or at least of weakness of the intelligence; on the contrary, the lunatic, under the influence of the last stages of physical disease, sees the darkness of his intelligence dissipated; similar to the flame which is about being extinguished, the mind resumes its lucidity, a striking contrast with the darkness or agitation of insanity.

Is Exalgine a Dangerous Remedy?

The *American Journal of Pharmacy*, August, 1890, says:

In a long article in the *Revue méd de la Suisse Rom.*, Prof. Prevost made the following remark: "Methylacetanilid is a more dangerous substance than antipyrine. It is also more dangerous than acetanilid, its solubility considered, and it is well to be circumspect in its use, especially until a riper experience has more definitely decided as to the kind of accidents to which it may give rise." To this, Dr. Bardet replies (*Nouv. Remèdes*, June 24), that in the single case of poisoning cited by Dr. Prevost the symptoms were caused by the prolonged use of exalgine in doses of 40 cgm., 3 times a day, and the obstinate constipation of the patient. Dr. Bardet wrote to Dr. Lloyd Jones (who attended the case) and learned that the doctor attributed the result to "an abnormal constipation." He said, furthermore: "I have frequently recommended exalgine and have a very favorable opinion as to its analgesic qualities." M. Bardet added that exalgine had now been in use for eighteen months and the accident cited was the only one to be found in medical literature. Like all active medicaments it should, of course, be used prudently; but if we are to renounce it as dangerous, we must also

give up the use of all medicaments capable of producing toxic effects.

Transplantation of the Shell Membrane of the Egg.

According to Haug, in the *Wiener med. Presse*, April 20, 1890, the lining membrane of the shell of the hen's egg may be used to restore deficiencies in the tympanic membrane. The outer surface is to be placed in juxtaposition with the remaining membrane. It is also essential that the margins of the perforation be freshened, which may be accomplished best by means of a small curette bent at an angle. The experiments of Haug demonstrate that when the proper details are observed a true organization of the transplanted membrane takes place and not a mere adherence. It is possible that this principle may find general surgical application.

Successful Splenectomy.

On July 13, in the clinic of the Hospital of St. Orsola, at Bologna, Prof. Tizzoni, in the presence of several physicians and students, removed a very much enlarged and ectopic spleen due to malarial infection. The *Raccoglitore Medico*, July 30, 1890, reports that on the tenth day the dressing was removed and the wound was found perfectly cicatrized. The organ, when removed, weighed 1,830 grams (over two pounds) and measured 28 centimeters (eleven inches) in length.

Injections of Corrosive Sublimate for Chronic Purulent Empyema.

The following case of chronic purulent empyema, in which injections of corrosive sublimate were successfully used, is quoted from the *Therupeutic Gazette*, July 15, 1890. At the meeting of the Société des Hôpitaux, held May 30, 1890, Dr. Fernet read a report of the case of a man, 34 years old, of alcoholic habit, who, on May 26, 1888, was attacked with pleurisy of the left side. Eight punctures were made at intervals more or less separated, and in June, 1889, the effusion became purulent. The patient's spirits became depressed, until at the commencement of 1890 he was a hydrochondriac and had to be taken to an asylum. At this time he had a fistula of the left side, which discharged daily a large quantity of pus from the pleural cavity. He had hectic fever and infectious arthritis. In March, 1890, thoracotomy was performed and a sac opened, which contained a considerable quantity of pus. On April 5, the pleura was washed out by means of a siphon, with a solution of corrosive sublimate of seven and one-half grains to the quart of water. Under the influence of this treatment, and without any symptoms whatever of mercurial poisoning, cure was effected, and the fistulous tract was obliterated, while at the same time the mental troubles disappeared.

Phenomenal Weight.

The *Medical Press*, July 30, 1890, says that on July 26 a girl, nineteen years old, died at Plaisance, near Paris. This girl was of an enormous size. A year ago she was weighed, and was found to exceed 470 pounds, and since then she had considerably increased. Around her waist she measured two yards and a half, while the circumference of her arm exceeded one yard. Last year it was proposed to exhibit the girl; but eight men were required to remove her from her room; and as she could not pass through the door the affair was abandoned. She succumbed to erysipelas, and a special case had to be made to contain the body, and finally it had to be passed through the window.

Fine Zinc Ointment.

After long experience in the use of ointment, Prof. Unna recommends the following admirable formula for oxide of zinc:

℞ Calcii carbonatis præcipitatæ,
Zinci oxidi,
Olei lini,
Aquæ calcis,

Of each equal parts, to be carefully rubbed up together.

Midwives and Septicemia.

The Paris correspondent of the *Lancet* says, July 5, 1890, that the Correctional Tribunal of L'Orient lately sentenced a midwife to six months' imprisonment. She was accused of having caused in one month, through neglect of the necessary precautions, the death of seven of her patients, who succumbed to puerperal fever.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MEDICAL LEGISLATION IN LOUISIANA.

The difficulties encountered by attempts to secure State regulation of the practice of medicine in this country have received a new illustration in Louisiana, where a bill providing for the appointment of a Board of Medical Examiners was defeated after it had passed some of the rocks which such bills always encounter. In the House of Representatives, it received a unanimous and favorable report by the judiciary committee of the Senate. When the bill came up for final action in the House, to the surprise of all, it was defeated by a vote of eleven to nineteen.

This defeat is attributed principally to two causes: firstly, to a private letter written to one of the senators by a member of the State Society from New Orleans, a man who has—the *New Orleans Medical and Surgical Journal* says, August, 1890—at all times opposed in an underhand way every public measure to which his consent was not asked, or which did not serve directly his personal interest, and who, unfortunately, enjoys a certain amount of popularity and influence among people who only know him imperfectly, and are therefore unacquainted with his hypocritical methods; and secondly, to a petition read in the senate by Senator Davis and signed by only ten medical men of New Orleans, all of the homœopathic sect. This document our contemporary publishes in full, with the names of its signers, and gives the names of the members of the Committee on State Medicine of the State Medical Society, together with the auxiliary committee.

The petitioners opposed the bill, our contemporary states, not on account of any menace of injustice to themselves, or to their sect or any other sect, or to the people, but used reasons in their opposition which are mere generalities, and which no thinking man, after reading the proposed act, would for a minute entertain. The reason, that it gave unlimited power to six men chosen by a layman—the governor—is met by the fact that at present the power is in the great majority of cases vested in seven men chosen by themselves and perpetuating themselves, and who, depending for their earnings on the number of their classes, are interested in rejecting as few applicants as possible, so as not to diminish their popularity, hence their emoluments. The board as proposed had little or no direct interest in refusing or admitting any one to the practice of medicine, and were more likely to act in a spirit of justice and fairness to every one.

It is a curious fact that in every State the most effective opposition to the appointment of Boards of Medical Examiners seems to come from those who represent the homœopathic and eclectic bodies. Although in the ranks of the regular profession there are many

men who bitterly oppose such examining boards, solely upon the ground that they give a certain *quasi* recognition to what we regard as sects in medicine, nevertheless many men who regret the necessity for such seeming recognition feel that even this is preferable to the present methods, by which almost anybody, with or without education, may begin the practice of medicine in most of the States of this country. Those who believe in State examining boards feel that, even at the sacrifice of personal and professional taste and preferences, it would be a good thing for the profession, and an exceedingly good thing for the community if the right to practice were restricted to those who had satisfied a competent examining board of their fitness; and that to have but one portal to the practice of medicine, and that portal freed from the interests of medical schools or the laxness of irregular practitioners would be a boon to our fellow-men, and tend to increase the respect of the community for the medical profession.

We hope that even yet in Louisiana the interests which have given temporary defeat to what is plainly the very best part of the medical profession there will be overcome, and that this State will succeed in securing a good examining board before long.

MYXŒDEMA AND TRANSPLANTATION OF THE THYROID.

In an editorial in the REPORTER, April 12, 1890, attention was called to the proposition of Mr. Victor Horsley to attempt the cure of myxœdema, or cachexia strumipriva, by transplanting to the patient the thyroid gland of a sheep, and to the fact that Professor Lannelongue had recently actually done this experimental operation. We have no news of the results of Professor Lannelongue's operation; but Mr. Horsley has a short note on the subject in the *British Medical Journal*, July 26, 1890. In this, he says he has learned that his proposition had been forestalled in 1889, by Dr. Bircher, in Aarau. In No. 357 of the *Sammlung klinischer Vorträge*, Dr. Bircher gives an account of myxœdema and cretinoid degeneration, his paper being published March 5, 1890.

In his paper Dr. Bircher describes the onset of acute myxœdema in a female patient from whom unintentionally the whole thyroid gland was removed. Severe myxœdema resulting, Dr. Bircher, on January 16, 1889, transplanted into the abdominal cavity a portion of apparently normal thyroid tissue from a goitre. The effect of this operation was to produce a very marked improvement, so that the patient was enabled to return to work, and the myxœdematous symptoms in great measure disappeared, only the condition of the skin suggesting the persistence of the malady. Three months later, however, it became evident that the transplanted piece of thyroid had atrophied, as the myxœdema again showed itself and progressed. A second transplantation was made, and again an improvement, and this time greater, resulted, as the patient recovered for nine months, even menstruation returning after amenorrhœa had persisted for over a year. At the present time the symptoms have recurred slightly, but the beneficial effect of the operation was thus indubitably established.

Professor Kocher wrote Mr. Horsley on May 19 and 31, 1890, that he attempted to obtain the same result as early as 1883, by transplanting a small portion of the gland freshly excised from a goitre, but the graft was soon absorbed. Hearing of Dr. Bircher's case, however, Professor Kocher took up the subject again early in 1889 by transplanting in two cases the half of a thyroid gland into the abdomen, fixing it to the wall by sutures. In both the gland was aseptically exfoliated after some time. In three cases he put the gland loose in the abdominal cavity. The results of these cases Professor Kocher has not yet collected nor published, but he has already learned that one patient has greatly improved since the operation.

Consideration of these results makes it,

Mr. Horsley thinks, abundantly clear that this operation should always be performed, not simply in cachexia strumipriva—which, of course, with our later knowledge of the function of the thyroid gland, he believes, will ultimately disappear—but also in myxœdema and sporadic cretinism. Whether or not it is better to transplant thyroid tissue from a human goitre or a healthy gland from a lower animal, as suggested in Mr. Horsley's first note, can only be decided by experience.

It is interesting to note the sanguine hopes of Mr. Horsley; but the surgical world may await something more conclusive than he has yet adduced before committing itself finally to a mode of therapy which has so many elements of the fanciful about it. Men who can swallow Pasteur's method for suspected rabies may find this method easy, but others will ask more in the way of proof and less in the way of conjecture.

PREVENTIVE INOCULATIONS AGAINST TUBERCULOSIS.

At the recent meeting of the International Medical Congress, in Berlin, Dr. Robert Koch made an address in which he asserted that he had discovered a method by which animals ordinarily very susceptible to contract tuberculosis from inoculations of the bacillus were made capable of resisting such inoculations. The details of his method he did not make public. Stimulated apparently by this announcement, which is calculated to attract widespread attention, Drs. Grancher and Martin, of Paris, announced in the *Bulletin Médical*, August 20, 1890, that they also had devised a method by which these results could be obtained.

In this number of the REPORTER Professor Samuel G. Dixon, of Philadelphia, presents a short article in which attention is called to the fact that a year ago—October 19, 1889—he had proposed the lines upon which preventive inoculations against tuberculosis might be expected to be successfully carried out, and that he had already succeeded in a certain number of instances in producing immunity against the disease in animals. This announcement antedates by so much the announcements of Koch, and Grancher and Martin, that American medical men must feel an interest in maintaining the priority which belongs to this country.

In this particular matter it may be pointed out that Dr. Dixon in his announcement gives some indications as to the method by which he obtains the attenuated virus used in his experiments. Intimations of this sort are totally lacking in the communications of Koch, Grancher and Martin.

AMERICAN MEDICAL DIPLOMAS ABROAD.

Any American medical man who has studied or traveled in Europe knows that on that side of the Atlantic American medical men get all the respect that they deserve, and usually a degree of kindly consideration which makes up for such defects as, if sensitive, they might otherwise be painfully conscious of. He knows, too, that American medical colleges are treated just as fairly, and that the reason why European governments do not recognize American medical diplomas as a passport to practice is because they are not far enough off to be ignorant of the laxness with which such diplomas are granted in many parts of this country. Their action is simply that which a number of our own States have felt called on to take against men educated in other States, in order to protect their own inhabitants against ignorant pretenders.

It is a great pity that such steps should be needful in our own land, and we may well feel mortified that they have to be adopted elsewhere; but this condition of affairs exists, and there is only one way to cure it. This is by mending our methods of education and bringing our standard up to a point which will secure universal respect. It will not do any good to indulge in any such foolish bluster as was recently put before

the American Medical Association by Dr. Samuel O. L. Potter, of San Francisco, and published in the *Journal*, July 19, 1890.

If this particular article should attract any attention on the other side of the Atlantic, we sincerely trust that it will be understood that it does not represent the opinions of the sensible medical men of this country. They know very well that the way to get respect is to deserve it; and have no reason to make an outcry for what comes without asking, if it ought to come at all, and what no self-respecting person wants if it is not freely accorded. The work of elevating the standard of medical education is going on very satisfactorily in the United States now, and before long we hope we shall have no need to blush for institutions which cheat the community and disgrace the profession; but that time has not yet arrived and we will not talk as if it had. There are medical schools in this country which furnish as good a medical education as any in the world; but there are some others which cast discredit on them. The mercantile concerns figuring as medical colleges are the proper objects of such scolding as Dr. Potter has published, and not European governments which neither deserve nor care for it.

PSOAS ABSCESS MISTAKEN FOR HERNIA.

Dr. J. L. Cunningham, of Fort Worth, Texas, reports in *Daniel's Texas Medical Journal*, August, 1890, a remarkable instance in which two physicians mistook a protruding psoas abscess for hernia, performed what they called reduction and applied a truss, after which the patient died. It is hard to see how so stupid a blunder as this could be committed by any one with the most ordinary medical education, although it is made the subject of plain warnings in the lectures and in text-books. But that it may occur, the case referred to sufficiently shows.

RUPTURE OF THE LARYNX OR TRACHEA IN WHOOPING-COUGH.

A question addressed to the Editor of one of our contemporaries and published in its issue for August, 1890, seems to have proved so difficult of solution that some of the readers of the REPORTER may not be offended if we make a few statements about the subject. The questioner described the case of a boy, seven or eight years old, with an attack of pertussis and broncho-pneumonia after measles. After a violent coughing spell "a puffy swelling" appeared in the region of the parotid gland and increased rapidly, extending down over the chest as low as the second rib, exactly like a huge goitre. It attained this size in two hours. The description states that when pressed upon it gave a "peculiar rustling sound similar to that produced by crushing soft paper in the hand." The tumor was painless and its skin unchanged in color.

In this we have as precise and lucid an array of the physical signs of subcutaneous emphysema as any text-book could give; and when they are considered in connection with the history of the case the diagnosis is quite unmistakable.

A case, in history of development similar to this, has just been reported by Dr. Justin Lemaistre, of Limoges, to the French Association for the Advancement of Science; but in this case an accident led to inflammation and contraction of the cavity in which the air accumulated. In both these cases there must have been a rupture of the upper part of the trachea, perhaps in the larynx, and the entrance of air into the inter-muscular and subcutaneous spaces. Such accidents are liable to happen, especially in weak subjects, during violent paroxysms, and we believe they are not exceedingly rare in whooping-cough.

It may not be easy to find records of such occurrences; but we have no doubt that they are not unknown to experienced physicians.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Third Session, held at Boston, Mass., September 17–19, 1889. Volume II. 8vo, pp. xxiv, 296. Philadelphia: Published by the Association, 1889.

The retiring President of the Association, Dr. E. H. Bradford, of Boston, has departed from what is becoming the custom in scientific societies, that of making simply a few introductory remarks, and has given an excellent review of early American literature and work in orthopedic surgery, a valuable bibliography of the writings prior to 1860 being appended. Dr. V. P. Gibney, of New York, in his paper on The Typhoid Spine, describes a condition occurring as a sequel to that fever, which is marked by great tenderness on forward or lateral motion, and on pressure over certain parts of the spine. Fever may or may not be present. Recovery occurred in all his cases, but is apt to be tedious. Treatment consisted in supports, counter irritation and the administration of anodynes. The affection is believed to be a periostitis or perispondylitis. Dr. Dillon Brown contributes an instructive paper on Psoas Contraction as a Symptom, in which he discusses the various conditions which give rise to it.

Dr. Charles L. Scudder's paper, based upon eighteen cases of Chronic Disease of the Ankle and Tarsus, gave rise to an interesting discussion. Dr. Scudder was in favor of excision as opposed to less radical measures, when operation was deemed advisable; most of the others appeared to be in favor of the expectant plan. Papers on The Principles of the Mechanical Treatment of Hip-Joint Disease, by Dr. Newton M. Shaffer, of New York; on Rest and Fixature in Joint Disease, by Dr. De Forest Willard, of Philadelphia; and on Excision of the Hip-Joint, by Dr. Reginald H. Sayre, are all valuable contributions to orthopedic surgery by men who have earned deserved reputations for their work in this department. Dr. John Ridlon, of New York, has two papers, one on a rare case of Congenital Dislocation at the Hip and the other on Fixation and Traction in the Treatment of Hip Disease.

A number of other useful papers are to be found in the volume, which fully comes up to the expectations raised by the first volume.

Literary Notes.

—The issue of the *Deutsche Medicinische Wochenschrift* for July 31, 1890, is a notable number. Besides the usual amount of interesting reading matter, it contains a greeting to the members of the Tenth International Medical Congress, at Berlin, by the editor, Sanitätsrath Dr. S. Guttmann; a paper on the relations of the larynx to the motor nervous system by Felix Simon and Victor Horsley, published in parallel columns in English and German; a paper on the application of cannabis indica in the treatment of the neurosis of gastric dyspepsias, by Germain Sée, in French and German; as well as papers by Bernays, of St. Louis, and Althans, of London.

—The *Wiener Medizinische Presse*, July 27, 1890, contains the first of a series of letters from New York.

—Dr. J. M. Mills, of New York, has been for several years studying the relation of eye-strain to headaches, etc., among children, and publishes a summary of his findings in an illustrated article in *Babyhood* for September. If *Babyhood* keeps on as it has been going for a year or so, it will have to be classed among medical journals; some of its medical articles being, in our opinion, inappropriate to the object for which *Babyhood* was originally intended.

Correspondence.

Restoration of Cut-off Nose.

To the Editor.

Sir: You inquire in regard to the case reported in the newspapers, in which Dr. J. M. Kelley successfully restored a nose which had been entirely cut off by a machinery accident. I have secured the particulars from Dr. Kelley, who has kindly given them to me in writing.

On July 1, Dr. Kelley was called to the Kincaid Cotton Mills, Griffin, Ga., and upon his arrival found a young man bleeding from the region of the nose. After examination he found that all the soft parts of his nose were gone, except about one-third of the left ala and a thin anterior flap of the nasal septum, which was lying upon the upper lip, still attached at its lower end. He was informed that it was cut off by a belt, which had slipped from its pulley while the machinery was in motion. He ordered the missing member to be brought to him; and after a short search it was found. He washed and warmed it thoroughly in warm water, lightly impregnated with bichloride of mercury, placed it in its proper position, raised the anterior flap and stitched all round with surgeon's silk. He then introduced into each nostril two large drainage-tubes, compressed and confined the parts firmly with several strips of isinglass plaster. Over the entire nose he placed a piece of oiled silk.

During the first twelve hours continual warmth was maintained by means of flannel laid across the nose, the flannel being doubled three or four times and saturated with warm bichloride solution. Dr. Kelley also injected this solution into the nostril frequently.

On the second day nothing was done, except to keep a dry flannel across the nose.

On the third day Dr. Kelley removed the drainage-tubes, washed out each nostril with warm bichloride solution, dried the parts and placed the tubes back as before. This was repeated almost daily until the tenth day, when Dr. Kelley removed all the dress-

ing and found the nose alive and united, except a small triangular notch in the right ala, which was so badly bruised as to cause its decay.

The time the nose remained off was about one hour, which fact renders this case a most important one for the medical profession. Dr. Kelley attributes his success to the securing of absolute cleanliness and the maintaining of uniform warmth during the first few hours after the reposition.

Yours truly,

C. FREEMAN.

Griffin, Ga.

QUESTIONS AND ANSWERS.

[In this department will be published questions on any medical subject by readers of the REPORTER, and answers by the EDITOR or by other readers.]

DR. JAMES WARE, Lake Charles, La., writes: I have seen so much benefit, particularly with children, from injections in the rectum of charcoal and chalk, say a tablespoonful of each, in twelve fluid ounces of water, in the bowel complaint that we have so much of here, that I want to know if there is a syringe with a long nozzle, that will enable one to throw a mixture further up the bowel. Would I run any risk by filling the lower part of the colon? or, can it be done?

[The application of fluids, with or without medication, to the colon is one of the most important resources of the physician and one entirely devoid of danger if the most ordinary precautions are observed. The fluids may be warm or cold, as indicated. They may be medicated or pure water. They may be used in large or small quantity, as needed. The whole of the colon may be flushed out with great ease; and happily no special apparatus is needed to do it. If a child is placed on the side—preferably the left, with the hips a little raised, and an ordinary anal tube is slipped into the rectum, one may, with gentle pressure by means of a common syringe or by the hydrostatic pressure afforded by a "fountain syringe," distend the rectum, open out the curves of the sigmoid flexure and pass a lavement all the way to the ileo-cecal valve; and, indeed, further at times. The secret of success is to be gentle and to take plenty of time. The measure is useful in inflammations of the bowels, and also in irritative conditions. It has even served to cut short attacks of convulsions due to reflex irritation in the bowel.]

—Cayenne pepper does not derive its name from the fortified city in French Guiana, but is a corruption of the Tupi (Brazilian) "quimyha;" similarly "chillies" is the proper Mexican name, and has nothing to do with the South American republic.

NOTES AND COMMENTS.

Koch on Treatment of Tuberculosis.

In concluding his address on Bacteriological Research before the Tenth International Medical Congress, Dr. Robert Koch said:

I am convinced that bacteriology will one day be of the greatest importance from the therapeutical point of view also. It is true, I look for relatively smaller therapeutical results in the case of diseases with a short incubation period and a rapid course. In these diseases, as for example in cholera, the chief reliance will always have to be placed on prophylaxis. I am thinking more of diseases of less rapid course, as these offer more points of attack to therapeutic enterprise. And there is scarcely a disease which, partly on this ground, partly on account of its far surpassing all other infectious diseases in importance, so challenges bacteriological investigation as tuberculosis.

Moved by these considerations, very soon after the discovery of the tubercle bacilli, I set about seeking for substances which could be used therapeutically against tuberculosis, and I have pursued this search, which has, of course, been often interrupted by my other occupations, perseveringly up to the present. In the belief that there must be a remedy for tuberculosis, I do not by any means stand alone.

Billroth has, in one of his last writings, expressed himself with all possible distinctness to the same effect, and it is well known that the same object is aimed at by many investigators. It seems to me, however, that the latter have not as a rule followed the right way in their investigations, inasmuch as they have begun their experiment on man. To that I ascribe the fact that everything which people have believed themselves to have discovered in that way—from benzoate of soda down to the hot-air treatment—has proved to be a delusion. Experiments must in the first place be made not on man, but on the parasites themselves in their pure cultures; even if substances have been found which have the power to check the development of tubercle bacilli in the cultures, man should not forthwith be chosen as the subject of experiment. But the question whether observations which have been made in a test-tube hold good also in living animal bodies should first be settled in animals. Only if the experiments on animals have

proved successful, should the method be tried on man.

Proceeding according to these rules I have in the course of time tested a very large number of substances to see what influence they would exert on the tubercle bacilli cultivated in pure cultures, with the result that not a few substances have the power, even in very small doses, of hindering the growth of tubercle bacilli. More than this, of course, a remedy cannot do. It is not necessary, as has often been erroneously assumed, that the bacteria should be killed in the body; in order to make them harmless to the body it is sufficient to prevent their growth, their multiplication.

I have proved the following substances to be remedies which hinder such growth even in very small doses (to mention only the most important): A number of ethereal oils; among the aromatic compounds, β naphthylamin, paratoluidin, xylidin; some of the so-called tar-dyes, namely, fuchsin, gentian violet, methyl blue, chinolin yellow, aniline yellow, auramin; among the metals, mercury in the form of vapor, silver and gold compounds. The compounds of cyanogen and gold were especially conspicuous, their effect surpassing that of all other substances; even in a dilution of one to two millions they checked the growth of tubercle bacilli. All these substances, however, remained absolutely without effect if tried on tuberculous animals.

In spite of this failure I have not allowed myself to be discouraged from prosecuting the search for growth-hindering remedies, and I have at last hit upon a substance which has the power of preventing the growth of tubercle bacilli, not only in a test-tube, but in the body of an animal. All experiments in tuberculosis are, as every one who has had experience of them has sufficiently discovered, of very long duration; my researches on this substance, therefore, although they have already occupied me for nearly a year, are not yet completed, and I can only say this much about them, that guinea-pigs, which, as is well known, are extraordinarily susceptible to tuberculosis, if exposed to the influence of this substance, cease to react to the inoculation of tuberculous virus, and that in guinea-pigs suffering from general tuberculosis even to a high degree, the morbid process can be brought completely to a standstill, without the body being in any way injuriously affected.

From these researches I, in the meantime, do not draw any further conclusions than that the possibility of rendering pathogenic bacteria in the living body harmless without injury to the latter, which has hitherto been justly doubted has been thereby established.

Should, however, the hopes based on these researches be fulfilled in the future, and should we succeed in the case of one bacterial infectious disease, in making ourselves masters of the microscopic, but hitherto victorious, enemy in the human body, then it will soon also be possible, I have no doubt, to obtain the same result in the case of other diseases. This opens up an oft-promised field of work, with problems which are worthy to be the subject of an international competition of the noblest kind. To give even now some encouragement to further researches in this direction was the sole and only reason why I, departing from my usual custom, have made a communication on a research which is not yet completed.

Allow me, therefore, to conclude this address with the expression of a wish that the nations may measure their strength on this field of labor and in war against the smallest, but the most deadly, foes of the human race, and that in this struggle for the weal of all mankind one nation may always strive to surpass the other in the successes which it achieves.

Cholera Items.

On August 20, an excitement was stirred up in London by the assertion that a sailor with cholera had arrived. It has since been found that he did not have cholera at all.

August 20, a death from cholera was reported on a British steamer at Malaga from Valencia. The disease was also stated to have appeared at Tortosa and Tarragona, and that there have been forty-eight deaths from cholera at the quarantine station at Eltor since the pilgrims were interred.

At Mecca, for the day before, ten deaths from cholera were reported and at Jeddah nine deaths.

From Madrid it was reported, August 21, that the Government physicians had announced their refusal to serve any longer in the cholera infected districts unless they were given a strong military escort. They declared that the peasants were opposing all attempts to institute sanitary precautions, and even resorting to force in order to prevent them from doing their duty, and that under these circumstances any abatement in

the virulence of the disease was quite impossible. The city of Arges had been deserted by all the inhabitants, only those who were down with the cholera and a few relatives who refused to desert them being left. The Mayor, who was the only remaining official in the city, had buried his own son, all the grave-diggers having fled the city. Out of 123 people, who had been attacked with the disease, 44 had died during the last four days.

August 23, cholera was spreading steadily along the Mediterranean north of Valencia, where there were from ten to twelve new cases daily. The disease had appeared in several villages in the Province of Toledo, and suspicious cases had been discovered in Madrid.

There were eight deaths on board a coolie steamer which arrived from Madras at Durben, August 24. The cause of death was given as diarrhœa, but the sanitary court declared that the deaths resulted from cholera and that Natal was an infected port.

Cholera was said to be spreading in the city of Toledo, August 25. Thirteen cases and five deaths were reported the day before. The Madrid Health Department had sent officers to Toledo to take sanitary measures.

The Government has established a second quarantine station at Rasmallag, on the Gulf of Suez, August 26. There were 13 deaths from cholera at Jeddah the day before. There were no deaths from the disease at Mecca.

In Toledo, August 27, eight new cases and four deaths were reported. The director of the military academy there had succumbed.

The Canadian Deputy Minister of Agriculture has had a cholera scare and declares that Asiatic cholera will certainly visit Canada next year, and that in order to check its advance he proposes to establish quarantine stations in British Columbia on the same system as that at Grasse Isle.

Some excitement was caused in Vienna, August 29, by a report that a patient in the Central Hospital in that city was suffering with Asiatic cholera.

Bleeding.

In an interesting inaugural address on the impressions remaining after a general practice of thirty-seven years, Dr. Alfred Freer, in the *Birmingham Medical Review*, says:

There is one old remedy that has, like disease, slain its thousands in divers countries, which I long, nevertheless, to see set up again upon a proper pedestal among the worthies, that is, bleeding. True it is this power was much abused in old days, but we all must have met with cases where the non-exercise of this potent spell has filled us with regret. I am old enough to remember the time when at least every week patients brought rolls of tape which they would pull out of their pocket, saying, with a somewhat dissatisfied tone, "Then you are not going to bleed me, sir?" Phlebotomy has so gone out that it is only with bated breath one dare hint at the propriety of its performance. And yet there are many cases which I think might be saved by it. Let me take three or four examples. Years ago I was summoned most urgently to a young butcher supposed to be dying, his own medical attendant being away from home. I found a man not able to lie down, gasping for breath and suffering from a pleurisy of three days' duration. He begged me to do something, and it was plain that unless speedily relieved he must die. I bled him to sixteen ounces, and it was a treat to see the poor fellow expand his chest more freely and enjoy the relief of the blood flow. From that moment all anxiety was over. Take another, a chronic case, not in my practice, but the circumstances well known to me. A well-to-do man of about sixty, suffering from cardiac valvular mischief, pulmonary congestion and great œdema of legs, ready to die. A practitioner of before 1815, and most unduly devoted to the practice of opening veins, was called in, superseding the regular attendant. He bled the patient with striking benefit. After the operation the much-needed diuretics acted like magic. Elated by success, Sangrado repeated the venesection with still more marked relief. A third and a fourth repetition, and the patient sank into such a profound anemia that he could not rally. The abuse of the remedy spoiled all. A third example: A year ago I was called to a woman aged fifty-three, generally soddened in beer, who was seized with giddiness, inability to speak to be understood, pain in the head, and incomplete left hemiplegia, while walking. Her speech was always mumbling at best. I bled her to twelve ounces with immediate benefit; and the friends exclaimed, on hearing her talk, "Why we have not heard her speak so plainly for three or four years." With the exception of diminished power in the left arm,

this woman has practically recovered, and I often meet her going to refresh.

Yet another example in which bleeding gives excellent results. I allude to puerperal eclampsia. What anxiety comes to especially young and isolated practitioners from seizures of this nature! I remember a primipara, white-faced and unmarried, who had violent convulsions in the first stage of labor; my father had bled her freely with much temporary abatement of the fits. In four hours they returned with violence, and on my father's advice I bled again to sixteen ounces and gave one grain of tartar emetic with one of opium. The convulsions ceased, the confinement proceeding favorably and the convalescence was uninterrupted. I do not mean it to be inferred that under modern superior light I would adopt such heroic treatment now, but I venture to aver that in many cases of puerperal eclampsia where the renal secretion is scanty and decidedly albuminous, and where there is marked œdema of the lower limbs, the withdrawal of some blood from the circulation is a most valuable resource.

Severe epistaxis often gives us a strong hint on this matter, and so does that severer monitor, hematemesis. Many a possessor of a chronically congested liver has been put on his legs again for an indefinite period through having passed through a hematemesis so profuse as to bring him for a time to death's door. We must not forget that the benefit of venesection or the abstraction of blood does not end with itself, but gives opportunity for the introduction of other valuable remedies into the lightened circulation.

Politics and Physicians.

The recent appointment of Dr. Baxter to be Surgeon-General of the U. S. Army has called forth the following pungent criticism by the *Nation*, August 21, 1890:

One of those appointments that are always to be regretted in the interest of the public service as a triumph of political skill over personal merit has just been made by the President. Dr. Jedediah H. Baxter, the Chief Medical Purveyor of the Army, has been appointed its Surgeon-General. Dr. Baxter entered the military service in 1861 as a regimental surgeon from Massachusetts, and in the spring of 1862 he was recommissioned as a staff surgeon of volunteers, a position giving him greater latitude of movement. After a short service on the Peninsula, and before the heavy fighting on the Chickahominy, he returned to Washington, where he has remained. At first on hospital duty, he was appointed by the Secretary of War the chief medical officer of the Provost Marshal's Bureau at its organization in 1863. Upon the dissolution of that special organization at the close of the war, he was retained by Congressional resolution to compile the vital statistics it had collected, upon which he was engaged until 1875. Meanwhile he had been appointed in 1867 to the newly-created office of Assistant Medical Purveyor, ranking as lieutenant-colonel, in the regular establishment; he was then advanced by selection and by special legislative sanction over the heads of other officers of excellent and much longer service, and finally was given additional rank as colonel, again specially created, in 1874, before he had discharged any duty in the Purveying Department. In his appointment the fundamental law of the Medical Department, that examination is a prerequisite to admission and promotion, was violated in spirit—although, according to the wording of the enactment, the appointment itself was technically legal. He has resided continuously in Washington since 1862; he has seen no service with troops; his unprecedented promotion in all its stages has followed from his close adherence to political methods at the capital rather than the impersonal and zealous discharge of public duty. This appointment is the worst possible, saying, as it does, to a scientific corps, admission to which, with this single exception, has been confined to merit, that political strength and not hard service is the real passport to place, if not to honor. The rejection of this nomination would be creditable to the Senate.

Tri-State Medical Association.

The second annual meeting of the Tri-State Medical Association (Alabama, Georgia and Tennessee) will convene at Chattanooga, on October 21, 1890, and will continue for two or three days.

The membership is not restricted to the three States. By furnishing proper credentials and remitting one dollar to the Secretary any physician may be enrolled as a member of this Association.

The Secretary is Dr. Frank Trester Smith, Chattanooga, Tenn.

American Association of Obstetricians.

The American Association of Obstetricians and Gynecologists will hold its next annual meeting in Philadelphia, September 16, 17 and 18, 1890, in the hall of the College of Physicians. All physicians interested are invited to attend. Information may be obtained from the Secretary, Dr. Wm. Warren Potter, Buffalo.

NEWS.

—It is reported that Dr. Richard A. Cleeman, of Philadelphia, was seriously injured by falling from a ledge of rocks at the Natural Bridge, Va., August 25.

—The new Croton Aqueduct, which had been closed in order to complete one unfinished section, was reopened August 25, with a volume of 25,000,000 gallons a day, which will be increased to over 40,000,000 gallons.

—Dr. Bahrsen, of Crookston, Minnesota, was shot dead by a man named Russell, near Grand Forks, North Dakota, August 26. Russell and his wife had separated and he blamed the Doctor for the separation.

—At a meeting of the Hygienic Committee in Paris, August 26, Dr. Proust read a telegram from Pernambuco, stating that there were 4,000 cases of small-pox in that province and that there was an average of twenty deaths daily.

—Dr. Charles B. Penrose, of Philadelphia, on August 25, swam fifteen miles in the Delaware River in five hours and five minutes. His competitor was Mr. Robert Ralston, who made the distance in five hours and thirteen minutes.

—Two men were instantly killed August 29, by stepping on a wire which supplies the current to the arc electric lights in the Wheeling Terminal Railway Company's tunnel, at Wheeling, West Virginia. Both men wore thick-soled and hob-nailed leather boots.

—Two boys died in Knoxville, Tennessee, on August 25, from a dose of morphine. Three other children were made very sick by an overdose. The drug was administered in mistake for quinine. The mistake was made by a druggist in filling the bottle.

—Dr. Anna Eddowes died August 22, at the Philadelphia Home for Incurables, at the age of sixty-three years. She was graduated at the Woman's Medical College, Philadelphia, in 1876, and soon devoted herself to the care of patients with cancer in the Home for Incurables in this city.

—In New York the Street Cleaning Commissioner has invited the President of the Board of Health to make a joint examination of the several systems for the cremation of garbage now used in European cities, and it is not improbable that some such plan for disposing of waste and refuse may be adopted.

—Members of the Pennsylvania State Committee on Lunacy on August 26, entered a protest to the Mayor of Philadelphia against the award of the contract for the erection of the two additional buildings to the department of the insane at the Philadelphia Hospital. The committee objects to the height of the buildings, three stories, and their location.

—Six thousand cattle, suffering from disease, were held in quarantine in pasture at Newton, Kansas, August 27. They were dying off rapidly, and a controversy had arisen as to the nature of their malady. It is feared that the late rains filling the streams which run through the pasture occupied by the quarantined cattle will convey germs of the disease to herds grazing in fields down the stream.

—Dr. Lassar, Secretary of the Tenth International Medical Congress, is said to have left Berlin for New York to escape the consequences of his rudeness while conducting the Empress through the exhibition. Besides this, his official statements at the last meeting of the Congress now prove to be incorrect. His friends excuse him on the ground that his nerves are overstrung and that, therefore, he is not responsible for his actions.

—The thirteenth annual reunion of the Pennsylvania and Maryland Union Medical Association was held at York, Pa., August 28. There were over 500 doctors, together with their families, in attendance from Philadelphia, Baltimore, Harrisburg, Lancaster and other cities and towns. Addresses were made by Dr. J. C. Gable, President of the York County Medical Society; Mayor Noell, of York; Dr. Deaver, of Lancaster county; Professor S. G. Boyd, of the York *Gazette;* Dr. Morris, of Baltimore, and Dr. J. H. Packard, of Philadelphia.

MEDICAL AND SURGICAL REPORTER

No. 1750. PHILADELPHIA, SEPTEMBER 13, 1890. VOL. LXIII.—No. 11.

CLINICAL LECTURE.

LACERATION OF THE CERVIX UTERI.[1]

BY WILLIAM GOODELL, M. D.,

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REPORTED BY LEWIS H. ADLER, M. D.

Gentlemen: The patient whom I bring before you to-day is twenty-seven years old and has been married six years. Some years ago she had a child; not long after its birth her health began to fail; her predominant symptoms being violent pain in the ovaries, back and loins, and in the occipital region of the head. Her suffering was most severe at the time of her menstrual periods. One year ago she came to this city and consulted an excellent gynecologist, who advised oöphorectomy. She then returned home and in a short while became pregnant again. While she was with child her general health became much better; but after her delivery her previous ill-health returned together with the violent pains; and last month she had administered to her at least twenty-five hypodermic injections of morphia and atropia, in order to alleviate her suffering. Yet when she consulted me a few weeks since, I could find no sufficient reason for advising an operation for the removal of the ovaries and appendages. I was more inclined to attribute her sufferings to a neurotic condition, which produced an imperfect circulation and thus occasioned congestion in the various pelvic organs.

Now, upon making a vaginal examination, I find on the right side a little thickening of the broad ligament, but the womb is perfectly movable. I do not feel the ovary on this side at all, and as I do not think that it is right to remove an ovary when it possibly can be avoided, I do not feel warranted in performing an oöphorectomy in this case.

It has become a matter of serious consequence at the present day—this subject of when to perform an abdominal section—as so many diseases of the female sexual organs are attributed by so many women, and physicians as well, to ovarian trouble. The former are willing to submit to, and the latter only too ready to advise, an oöphorectomy for uterine disorders and neurasthenia. This operation, though frequently followed by relief, should be resorted to only as a final measure, after all other resources have failed. Moreover, women are just now attributing too much of their neurasthenia to womb disease. It was only the other day that I had a lady come to me to be treated for uterine trouble, when examination revealed that she was suffering only from neurasthenia.

Returning to the case before us, I find in addition to an enlarged broad ligament on the right side, that the patient has a tolerably bad tear in the cervix, and I know from the history she has given me of her symptoms, that this is the physical basis of her trouble. I have therefore advised her to submit to an operation for the relief of this laceration, which I shall now perform before you; after this is done and she has fully recovered from the primary effects of the operation, I shall follow out a protracted plan of treatment for the neurasthenic element in her case.

In beginning the operation, the patient is placed in the Sims' posture, which allows the abdomen to sag down, and as I introduce the duck-bill speculum the air rushes in, expanding the vagina. The cervix and surrounding parts are now cleansed with a 1-2,000 solution of the bichloride of mercury. The position of the

[1] Delivered at the University Hospital.

internal os is now ascertained, so as to locate the site for the new cervical canal. Through this point a piece of strong thread is passed upon a needle, which latter is removed, leaving the cord *in situ*. The ends of this are now tied; with a tenaculum, that portion of the thread between the two lips of the womb is caught and drawn forward. This doubles the loop into two small ones each of which steadies one lip of the cervix. By this means I can draw the womb down and hold it in the proper position for the operation. The process of denudation is now begun; first, however, two straight, parallel incisions are made upon each lip, on either side of the thread, about a quarter of an inch apart and not very deep, in order to mark out the mucous membrane which is to remain undenuded to serve as the lining for the future cervical canal; after which, to prevent blood from above obscuring what is being done, I begin at the lower angle of the fissure and denude up to the two lower incisions. This is repeated above as far as the two upper cuts, care being taken to remove all of the cicatricial tissues. It is usually necessary to remove a wedge-shaped mass of this tissue at each angle of the wound. Often in this operation small Nabothian glands will be seen filled with a gelatinous material. Whenever it is possible to do so, these should be dissected out.

The next thing is the introduction of the stitches. As those on the lower side are the most difficult to pass, they are inserted first. The wire I use is number 31, which is as fine as is compatible with safety.

The sutures being all passed, the next thing to do is to secure them. Before doing this the wound is syringed with the antiseptic solution (bichloride of mercury) so as to get rid of all clots and foreign matter that may be present. The shot is now slipped down over a suture and clamped. I always put two shot on the first suture, because there is danger of more pressure being exerted upon it. The same procedure of syringing and of shotting is repeated in placing each of the remaining sutures. When all this is done the wound, as you will notice, presents a nearly normal appearance. I would call your attention to the upper suture on each side, which I have left several inches longer than the rest, which are cut on a level with the shot—this is done to facilitate the removal of the stitches. These long sutures have an additional shot clamped over their ends to prevent injury to the mucous membrane of the vagina. When the time arrives for the removal of the sutures, all that is necessary is to introduce my bivalve speculum and, by means of traction on these two long wires, the cervix is readily brought well into view. The stitches are then easily removed, first on one side and then on the other.

I now complete the operation by again syringing out the vagina with the bichloride of mercury solution, sprinkling the cervix with iodoform and packing the vagina loosely with gauze containing the same drug.

In the majority of these cases the surfaces of the wound are so closely and accurately adjusted that not a drop of blood is flowing at the time of the completion of the operation; such you see was so in the present case. I have sometimes seen a secondary hemorrhage result. It can usually be controlled with ice placed in contact with the cervix. Should this fail, vaginal injections of hot water, of tannin or of alum may be tried; but none of the preparations of iron, since these interfere with immediate union of the parts. Should these means fail and superficial stitches not check the hemorrhage, tamponing must be tried as a last resort. The cervix is gently pulled down by means of the two long sutures, and the vagina is packed with three sponges—one on each side of the cervix to compress the surfaces of the wound together, and the third sponge in front of the cervix to keep the others in place. Should this tampon not succeed in controlling the bleeding, a suture should be passed deeply behind the point from which the hemorrhage comes.

The subsequent treatment of the patient consists in keeping her in bed for at least two weeks. The urine ordinarily should be drawn for forty-eight hours. After the second day the iodoform gauze is removed and the vagina washed out twice daily with a weak antiseptic solution of the bichloride of mercury; on the fourth day the bowels are opened, and the tenth day the stitches are removed. A point of importance is to count the number of stitches before the patient leaves the room; for they often become buried, together with the shot, so as not to be readily seen. I remember well the case of a patient of mine in private practice, who lived in the country, upon whom I performed this operation many years ago. In the course of a month or so she came to my office and said that coition

was very painful to the husband, who thought that there was something in the vagina which ought not to be there. An examination revealed, much to my mortification, an overlooked wire suture with sharp points. It had interfered with the marital relation, but it had given the woman no pain or inconvenience.

The proper time for the performance of this operation is about a week after the menstrual flux. If it is performed earlier or later than this, it will be likely either to renew the last period or to bring on prematurely the next one. The appearance of the menses, however, while the stitches are in has never in my experience interfered with union.

It is a good rule in operations for the restoration of a lacerated cervix, not to promise too much and above all not to promise good results too soon.

COMMUNICATIONS.

MEDICINAL TREATMENT OF TYPHOID FEVER.[1]

BY T. J. HAPPEL, A. M., M. D.,
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Almost semi-annually the medical public is treated to announcements of new remedies that are either infallible cures for, or at least very largely diminish the death-rate in, many diseases, most notably continued fevers. At once the enthusiasts rush into the field of experience, and soon medical journals teem with announcements of successes beyond expectation from every quarter. In time, however, these reports grow less and less favorable. Soon conflicting reports appear in the same journals, and finally the pendulum from its furthest point sets fairly back on its return.

The result is a few advocates of the theory remain; but the large majority, disappointed, go back to their old modes of treatment. The question naturally arises: "Does good result from such experimental work?" I answer promptly, "Yes." Finding that failure so often attends the use of new systems and modes of treating diseases, the physician begins to investigate his cases more closely, finds that frequently the proposed mode of treatment cures some cases, but they are not typical cases of the disease under consideration. In fact, a careful diagnosis would show that those cases cured were not cases of typhoid fever, but were cases of some of the types of the so-called malarial fevers. I would suggest then at the very outset of what I may have to say, that everything depends as to cures and curative measures upon a careful diagnosis of all cases treated. Too often physicians fall into a routine diagnosis, as well as a routine way of making a diagnosis. One physician diagnosticates all cases of fever as "typhoid fever" which do not respond to his usual remedies of quinine and calomel for remittent fever; another—one in my circle of friends, a gentleman of high professional standing, asserts that when he has given 20 grs. of quinine night and morning for several consecutive days and fails to arrest the fever he is sure that he has to deal with a case of typhoid fever.

In my limited experience, I have seen a number of such cases under such circumstances—cases which refused to respond to either ordinary or heroic doses of quinine—yet the progress of those cases through a siege of from three to eight weeks, proved conclusively that they were not cases of typhoid fever. There was but one point of resemblance to typhoid fever throughout their whole course and that was their duration. Rarely are *post-mortem* examinations to be had in such cases, but in the few made, none of the typical lesions of typhoid fever have ever been found, showing that they were not cases of typhoid fever.

Before, then, entering upon a discussion of the treatment of these fevers, and especially of typhoid fever, a careful and painstaking examination and investigation of their clinical history must be made with a view to diagnosis between typhoid and continued remittent fevers. When we are certain as to the nature of the disease with which we have to contend, then and then only are we ready to discuss the treatment. In the continued remittent fevers, many cases of which have been met with in the last few years in West Tennessee, where the whole history of the attack can be had from a careful observer, no difficulty in diagnosis can be experienced, but otherwise it is very difficult.

In an article on typho-malarial fever, so-called, read by me before the State Medical Society of Tennessee in 1886 (see trans-

[1] Read before the American Medical Association, May 21, 1890.

actions of that year, pages 85 and 86), I reported the only two cases of this form of continued fever which I had seen or treated up to that time. Since then I have met with a number of such cases, the duration of which, and their resistance to the action of quinine in large and small doses would have led one to infer that they were cases of typhoid fever; but when the clinical history of the cases were taken, there was no longer any ground upon which to found a belief that they were typhoid. The diagnostic features of that disease were wanting. In the majority of the cases there was no tympanitic distention, except from occasional errors of diet, no gurgling, no rose-colored spots, no hemorrhages from the bowels, no epistaxis, no low muttering delirium, such as is so often met with in typhoid fever; and above all, the temperature chart in all cases showed too great a morning and evening variation.

Another marked peculiarity of the cases was the tendency towards prolonged cold stages in the third, fourth and fifth week of the disease, with no proportionate febrile reaction, the stages—paroxysms—being usually an indication of a change in the character of the fever from a remittent to an intermittent type and the beginning of a rapid improvement. There was shown a disposition to relapse in some of the cases. The prognosis was favorable. I met with but one fatal case in my own practice, and death in that case resulted from congestion of the lungs due to imprudent exposure in an algid condition. As stated before, a careful review of the whole clinical history of those cases satisfied an impartial observer that they are not cases of typhoid fever, and I can find no other name for them than that of continued remittent fever.

In a paper read before the West Tennessee Medical Society, one of its members reported a large number of cases of typhoid fever treated by him in and around Martin, Tennessee, and cured by administering to them early in the disease, calomel in full doses, followed by quinine in thirty-grain doses night and morning for several days. Not a case terminated fatally, but the fever rapidly yielded and the disease was aborted and cured by the calomel and quinine treatment.

A physician living in a neighboring town in discussing the paper stated that his practice overlapped that of Dr. ——, and that *he* had seen scarcely a case of genuine typhoid fever that season, but had met with a number of cases of remittent fever that had resisted ordinary methods and had been protracted to three or four weeks or more, and that these cases were among the very ones denominated typhoid by the author of the paper. The surroundings of the town were such as to give rise to cases of continued remittent fever, the adjacent country and the town itself being almost one large saw mill. Saw-dust lay around decomposing in every direction, whilst, it being a new place, there was little or no animal matter to pollute the water supply or poison the air.

Now, with these statements made, I think we are ready to briefly review some of the different methods of treating typhoid fever and compare the results obtained thereby, carefully excluding cases of continued remittent fever. In the early days of West Tennessee there were no cases of typhoid fever. The impression made upon some of the older practitioners by the first cases of that type of fever with which they came in contact were very vivid. It was a disease of which they had read, but with which they had no experience, and the treatment of those cases by calomel and jalap followed by active purgatives, bleeding and quinine, generally produced fatal results. That was the course then pursued with the malarial fevers which they treated. The failure of remedies that they considered infallible, led them to investigate more closely their cases, and they soon found that they had a distinct fever to treat, different in many respects from what they were pleased to call their bilious fevers. The lancet, calomel and quinine were soon recognized as failures, the mortality being high, nearly fifty per cent. of the cases so treated dying. The lancet was with reluctance discarded, and still the patients died. Active purgatives were abandoned. Later on we were taught that mercury, given in some form and continued long enough to produce slight ptyalism, was highly recommended. In connection with this treatment we were taught that, inasmuch as the disease was a self-limited one and inclined to continue for a long time, the *general* abstraction of blood was to be avoided, but local bleedings were highly commended. Leeches and cups were to be used over painful tender spots. Attention was called to alimentation, and proper forms of food were discussed. Conjoined with this plan of treatment, turpentine was directed as an agent to stimulate the healing of the ulcerated glands and for

the relief of gas, etc. The mortality tables soon showed improvement; but the percentage of deaths was still high and the specific was not yet found.

Prof. Wood asserted in his work on *Practice* (edition of 1860) that all cases recovered where the remedy was given early and continued without cessation throughout the disease; but such was not the success of others, in whose hands the mortality reached from ten per cent. to thirty per cent.

It would be a work of supererogation to refer to all the different modes of treatment heralded to the world as specifics for typhoid fever. The acid treatment was recommended by high authorities as the most rational mode of procedure, and statistics were adduced to prove that it was the best of all. But, as in the case of other remedies, other users of it did not obtain the same happy results.

We were taught that the high temperature was an important factor in producing fatal results; and cold or tepid sponging, the packing process, veratrum viride, aconite and other remedies were strongly advocated by some in high positions in the medical profession. But they met the same fate as the others already named. One set of statistics proved that the percentage of fatal cases was reduced, whilst another satisfactorily established the other side of the case.

Salicylate of soda was to work miracles in curing cases of typhoid fever, by virtue of the many properties that it possessed, not existing in any other one remedy. But, alas, many of us found to our sorrow that cases where it was persistently used terminated more frequently in hemorrhage from the bowels than where any other remedies had been tried. So that, in the opinion of the writer, the remedy proved to be a step backward.

Again, the fatal results in typhoid fever were claimed by some authorities to be due to the accumulation of effete, septic material thrown off into the alimentary canal by the ulcerating patches and glands, and that the remedy for this condition was to keep the bowels moving loosely several times a day. Hence small doses of magnesia sulphate or of soda bitartrate were recommended; or, if there were reasons for avoiding a purgative, the daily use of the syringe.

But the death-rate did not, to put it mildly, decrease.

Another process more recently pressed as capable of reducing the death-rate to three per cent., or even less, is that of cold bathing, as recommended by Brandt. This cold bathing of Brandt must not be confounded with sponging, cold-packing or other forms of cold bathing. To accomplish the results claimed for it, all the minutiæ of the plan must be attended to; the tub must be brought to bedside and filled two-thirds full of water; the bathing must be begun early, *even before a diagnosis can possibly be made*. I would suggest that the longer before a diagnosis can be made, the bathing is begun, the greater the per cent. of cures; because the greater the number of febriculæ and simple continued fever cases you treat.

At a recent meeting in New York City of the Section on Practice of the Academy of Medicine, Dr. Simon Baruch read a review of the many discussions of the treatment of typhoid fever and closed with an earnest appeal for the adoption of the cold-water treatment as recommended by Brandt. [See an editorial in the MEDICAL AND SURGICAL REPORTER, March 29, 1890.] According to Dr. Baruch the cold bath works wonders. It reduces temperature, strengthens the action of the heart, deepens respiration, increases the action of the kidneys and skin, improves digestion and creates a desire for solid food. All of which brightens and strengthens the patient and—*post hoc, ergo propter hoc*—must prevent the accumulation of effete material in the system. Dr. Baruch gave an elaborate description of what constituted a cold bath by Brandt's method contradistinguished from the wet pack, cold sponging, cold effusions and the various methods in vogue of applying either tepid or cold water to fever patients. For a description of this method, reference is made to the MEDICAL AND SURGICAL REPORTER of the date named above.

The mode of using is a complicated one, requiring the aid of at least four helpers, two for day and two for night service. The plan could be carried out only in a well regulated and thoroughly equipped city hospital, and hence would avail but little to the general practitioner in private practice outside of a city. But while the rationale sounds well, and the best results have been reported by Brandt, Voght and Bouveret, a mortality of less than three per cent. being reported, we are forced to admit with all the evidence before us that the case is not proven.

There is not a practitioner here present, who, if he will make it a rule to treat *every* case of fever with systematic bathing conjoined with quinine, could not make equally as favorable an exhibit. Stress is laid upon the commencement of the bathing process before a diagnosis can be made. This is an important point. If we wait until we are fully satisfied that we have a case of typhoid fever to treat, we will find that Brandt's method will offer no advantages over former methods of treatment when the great inconvenience attending the use of it is considered. Its advocates must at least admit that it is, as yet, *sub judice*. The only way in which reliable statistics can be obtained in regard to curative measures in the treatment of typhoid fever is to exclude all cases classed as doubtful from our calculations.

As intimated in the early part of this paper, it is strange how two practitioners of medicine, having fever cases in the same neighborhood, will meet with such different types of disease. One will denominate all of his cases typhoid, because they refuse to yield promptly to ordinary treatment, and the other reports his as obstinate cases of remittent fever. One or the other is mistaken, and where the surroundings all favor the development of the malarial fevers, I would be inclined to regard all of those cases as of the continued remittent type; and to think the practitioner, instead of discovering a new method of curing typhoid fever has proved his inability to diagnosticate the disease he is treating. There is always an inducement to call a protracted case of fever "typhoid;" that explains why it does not recover promptly; but call it continued remittent fever, and the family expects the disease cured at once, because they think that any physician ought to be able to cure bilious fever.

The Brandt bath is claimed to be "not a nervous sedative" but a "refreshing measure by which the depressing effect of the typhoid poison is counteracted." That the impact of the cold water upon the surfaces causes deeper inspirations, inhaling in consequence more oxygen and giving off more carbonic oxide, sending a refreshing impulse to the nerve centres, supplying the heart and stomach, thus imparting tone to the one, and stimulating into activity the secretions of the other. It seems to me that if this is the rationale of the tedious, tiresome, and frequent bathings of the Brandt system we have other agents that can accomplish as much without any more danger, with far less inconvenience, and as much certainty. I protest that the mortality in typhoid fever cannot be reduced to from one to three per cent. by any such procedure, but that the errors in diagnosis account for the vast discrepancy.

I agree with Dr. Joseph Jones, of New Orleans, who in a paper read April, 1889, before the State Medical Association of La., took the position that "allowing due weight to the effects upon the rate of mortality in different modes of treatment, of the variations of climate, condition and degree of severity, it must be admitted that the rate of mortality in the great class of febrile diseases has steadily diminished during the past thirty years. With reference to typhoid fever, which may be selected as a type of these acute febrile diseases, which are self-limiting and show a tendency to spontaneous recovery, the search after remedies which may subdue or modify the febrile movements have met with at least partial success."

Instead of the tedious and oft-times impossible bath of the Brandt system, we can reduce the temperature of our patients without any more danger than experience and further use will prove to be present when the system is more extensively used, by the judicious administration of antifebrin or phenacetin. I use the term judicious advisedly, because remedies that are so powerful for good must be equally capacitated for evil, when used carelessly. Antifebrin given in such doses as the patient is found to bear, will accomplish in one hour what is effected by the Brandt system in three times that length of time. The pulse will be reduced in frequency and its tonicity improved; the temperature will rapidly approximate the normal point, and there will be produced the same good effect upon the appetite by it that is found in cases of the bath. In proportion as the temperature is kept near the normal point will the heart be strengthened, and the stomach stimulated, and *vice versa*. The control of the fever is a most important element in the treatment of typhoid fever, and in the class of remedies at the head of which stands antifebrin, we have agents superior to any heretofore in use with which to keep the heat within bounds. I do not deem it necessary to discuss the uses and action of antifebrin on the system. A most important feature in its action is in the decided increase of the general euphony of the patient. There is a greater desire

for, and a greater power to assimilate food and drink. There is a decided decrease in temperature, and a reduction in the frequency with a corresponding increase in the strength of the pulse, just those points that are claimed for the Brandt bath, but in addition, we have, as another effect, an increase in the amount of urine voided.

To this extent, if no other, could we successfully assert that progress had been made in the treatment of typhoid fever, but we can go a step further, and I trust show that in the phenol remedies we can present agents which have more claims to merit in the treatment of typhoid fever, as well as the continued malarial fevers, than any other medicines hitherto used. In the last three years I have treated every case of typhoid fever or of continued remittent fever with carbolic acid, either alone or combined with iodine, and in that time I have not had a single death from typhoid fever, where the stomach of the patient could tolerate the remedy. I have thought that where iodine and carbolic acid could be administered together, I obtained more satisfactory results. One case of typhoid fever terminated fatally, where neither of the remedies was borne for any length of time. During the first three weeks of the disease an occasional dose of the mixture was tolerated, and with the aid of not more than five grains of antifebrin in twenty-four hours, the temperature never rose above 102½°; but at the end of that period the stomach no longer tolerated the remedies, and the patient died in the sixth week of the disease.

I have seen in the last year three fatal cases of typhoid fever in consultation, treated with turpentine and the acids; death in these cases was caused by hemorrhage from the bowels.

If the experiments of Pasteur and others have proved that many, if not all diseases are due to the presence and active development of living germs in the system, then certainly specifics, curative agents for those diseases—must be remedies to destroy those germs. Dr. W. F. Glenn, of Nashville, Tenn., in an able paper upon the Phenique Compounds in Germ Diseases, read before the Tennessee State Medical Society at its meeting in April, 1890, states that for the last ten years he has employed phenic acid in the treatment of typhoid and malarial fevers as well as the eruptive ones, and in typhoid fever he "never had a diarrhœa or hemorrhage, never a serious tympanites, never a death." Dr. Glenn's experience in the use of carbolic acid agrees exactly with my own, though as I stated, I usually combined iodine with the acid.

I have referred to the most important phases of treatment of typhoid fever.

As to the mortality under the different forms of treatment, it is found that, under bleeding and free purgatives we have no reliable data; but reports place the death rate at 50 per cent.; when bleeding was abandoned, but purgatives still continued, the mortality was reported to be from 30 to 40 per cent.; under the turpentine treatment, conjoined with careful feeding, we find reports showing a death rate varying from 10 to 30 per cent.; under the acid treatment, we find the deaths to be below 10 per cent.

Allowing due weight to the reports on the Brandt method of the treatment of typhoid fever, this shows a further improvement in the prognosis of the disease.

In the last-mentioned plan of treatment, antifebrin or phenacetin to keep the temperature at or below 102°, and the phenique preparations, either alone or combined with iodine or ammonia, we have a mode of procedure that offers to the medical profession some hope in the near future of being able to say that typhoid fever can be cured; not that it is a self-limited disease, and that this or that plan of treatment enables you to sustain your patient until the disease has run its course.

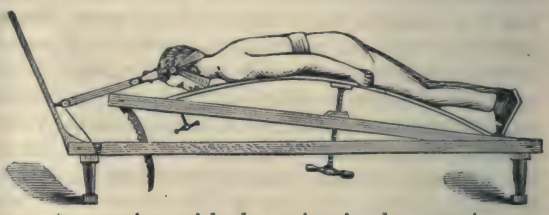
In concluding I desire to call attention to two effects of the carbolic acid treatment, which Dr. Glenn notes, and which my experience also substantiates; namely, the tendency to constipation and, in a slight degree, to render the blood less fluid. The judicious use of mild laxatives or the syringe will be needed to relieve the first, and the second can be met by administering ammonia in combination with phenic acid in the form of ammonia phenate. The use of the phenique preparations will be found also to lessen the temperature, and hence there will be less demand for antipyretics. So long as the temperature does not go beyond 102° I do not use antifebrin, but depend upon sponging with cold or tepid water, whichever I find to be most pleasant to the patient.

—Ichthyol Suppositories (33 per cent.) are recommended for the treatment of intestinal catarrh, both acute and chronic.

MECHANICAL TREATMENT OF SPINAL IRRITATION.

BY G. FRANK LYDSTON, M. D.,
CHICAGO, ILL.

It is not my purpose to enter into a discussion of the merits of the term spinal irritation, nor the finer pathological distinctions involved in the consideration of that omnibus. I desire, however, to direct attention to a method of treatment which I consider invaluable in those annoying cases of hyperæsthesia of the spinal cord and spinal nerves which have ever been a source of much trouble to the physician. As is well known, the *ensemble* of symptoms characteristic of what has been termed "hysterical spine" includes subjective and objective symptoms which are directly referable not only to the spinal cord and its nerves, but also to the various viscera supplied by the spinal cord. The spinal cord is not only involved, but the numerous ganglia of the great sympathetic nerve system are affected through the medium of their communicating rami. The close association between circulatory disturbances of the spinal cord and perturbations of the function of the sympathetic ganglia has been clearly shown by Clevenger.[1] Whatever may be said as to the anatomical changes in spinal irritation—whether these consist of varying degrees of anemia, hyperemia or congestion—is of but little moment in the consideration of the treatment which I am about to advocate. There is, to say the least, a greater or less degree of impairment of nutrition of nervous structure and incidentally of general nutrition. The latter may be primary or secondary. Again, the treatment is equally efficacious, whether the point of departure of the nervous disturbance be in the cord itself or consist in some disturbance elsewhere, the results of which have been reflected upon the cord. Personally I regard the local condition in spinal irritation as one of varying blood supply, there being at one time anemia and at another hyperemia of greater or less degree, and there being, perhaps, anemia in one portion of the cord, while other portions are hyperemic, which is essentially the view held by Ross in his *Nervous Diseases*, vol. ii, p. 332. These circulatory disturbances being dependent upon perturbations of the sympathetic ganglia, the indication in all of these cases is, of course, to seek for and if possible to remove the primary cause of the trouble. This may or may not be found. The next indication is to equalize the circulation of the spinal cord and its nerves, and thereby to improve the nutrition of these structures. This object I believe to be best accomplished by Stillman's method of extension upon the curved board. The apparatus used for this purpose is shown in the appended figures. Dr. Stillman advocates both the anterior and posterior curves during extension in cases of locomotor ataxia and other spinal affections, with a decided preference, however, for the anterior curved position. (Fig. 1.) Personally, I consider the anterior curved extension with the spine in the anterior position as the only method likely to be productive of benefit. The posterior curved extension is shown in Fig. 2.



Regarding the efficacy of this method of spinal extension, I will take the liberty of stating my views regarding the *rationale* of extension of the spine in locomotor ataxia and spinal irritation, especially as regards its effects upon the circulation. My theory of extension of the spine was originally published in the *Medical Mirror*, May, 1889. The method which has been most in vogue for extension of the spine is that of Sayre, as first used by Motchoukowski and afterwards brought in special prominence by Charcot. Most of the authorities who have thus far studied the subject have come to the conclusion that the circulation of the

[1] *Erichsen's Disease*, by S. V. Clevenger.

spinal cord is improved by spinal extension, but this they believe to be brought about through stretching either of the spinal cord directly or of the spinal cord secondarily through the medium of the spinal nerves. Others do not venture to advance an opinion as to the *rationale* of extension. Dana,[1] Morton,[2] Stillman[3] and Waitzfelder[4] do not seem to be at all clear as to the action of extension, although they admit its value. Stillman states that he considers the *rationale* of extension to be still undetermined.

I fail to see how any of the explanations of the mechanical cause of improvement in the nutrition of the cord which have thus far been offered, in the consideration of the treatment of spinal affections by extension, can be consistent with our knowledge of the anatomy of the spinal column, the spinal canal and its contents. I do not believe that it is possible by stretching of the spinal column to exert sufficient traction upon the loosely attached spinal cord either to stretch it, or to stretch the spinal nerves. It appears to me to be absolutely impossible to exert a traction force of any degree upon the cord through the medium of the spinal nerves. Indeed, the structure of the spinal canal and its contents is such apparently as would defeat any attempt at direct traction upon the cord or its nerves. The spinal cord does not completely fill the spinal canal, its investing membranes being invested by areolar tissue and a rich plexus of veins and capillaries which separate the cord from the bony walls of the canal. As compared with the length of the spinal canal, the spinal cord is relatively very short, extending only from the foramen magnum to the lower border of the first lumbar vertebra.

It is unquestionably true, as proven by experiments upon the cadaver, and as I have observed in experiments upon the living subject, that the spinal column can be extended. Now, if this extension produces improvement in the general circulation and in the nutrition of the spinal cord, and if moreover (as I believe) it is not practicable to exert sufficient traction to stretch the spinal cord or its nerves within the limits of safety, there seems to be some other explanation of the action of extension. I believe that extension does produce both local and general improvement in nutrition, but I do not believe that this result is attained through traction upon the cord or the spinal nerves. The spinal column is composed of a number of firm, bony segments united by elastic and inelastic structures. The elastic bonds of union between the vertebræ (chiefly the ligamenta subflava) are the media through which extension of the spine is possible within certain limits. The inelastic structures, although perhaps extensible within certain limits, are the principal agents in limiting the range of elasticity of the ligamenta subflava. In a general way it may be said that the vertebræ constitute the rigid segments of the spine, while the intervertebral tissues and ligaments constitute the extensible and more or less elastic segments of the spine. These segments constitute the walls of a canal which in its entirety is quite capacious. Admitting that it is perfectly practicable to lengthen the spinal column, it is a self-evident fact that the cavity in which the spinal cord and its investments rest, is increased in its capacity to a degree proportionate to the lengthening of the spinal column. The increase of capacity would be represented by a cylinder of a length corresponding to the increase in length of the spinal cord when fully extended, with a mean diameter corresponding to that of the spinal canal. This will be admitted by all who believe that lengthening of the spinal column by extension is practicable. This fact having been admitted, its corollary is at once obvious. There is a tendency to the formation of a vacuum of greater or less capacity within the spinal canal, the result of which is an aspirating or suction force along its entire length. The simplest of physical principles explains the rest. There is an active determination of blood to the part, with a consequent stimulation of the functions of the cord, and an improvement in its nutrition, which lasts for some time after the tension upon the spinal column has been removed. An incidental element in the improvement of nutrition is a lessening of resistance to the venous flow. The effect of an increased *vis à tergo* and a diminished *vis à fronte* is at once apparent.

The improvement in the general circulation incidental to extension, if properly performed, is very evident even to a casual observer. The extremities, which in locomotor ataxia are cold and show evidences of faulty circulation, grow warm and redden during the continuance of a suspension.

[1] *Medical Record*, April 13, 1889.
[2] *Medical Record*, April 13, 1889.
[3] *Western Medical Reporter*, April, 1890.
[4] *Medical Record*, April 13, 1889.

This improvement in circulation will be observed to remain for a greater or less length of time after suspension is stopped. The pulse will be found during extension of the spine, at least by the method which I endorse, to grow more frequent and fuller; respiration is also increased.

The so-called Sayre method, as advocated by Motchoukowski and Charcot, is in my opinion a very faulty one, and is by no means free from the element of danger. Some four or five cases, if not more, have been reported in which death has occurred as a direct consequence of shock or asphyxia induced by the suspension method. This method is certainly painful, and the risk, considering the number of deaths that have occurred from it during its short existence, is considerable. The traction upon the spine is exerted in an indirect manner. It is produced solely by longitudinal traction, no attempt being made to take advantage of certain mechanical principles which can be applied to the spine. The method certainly entails hard work upon the patient, the first principle of treatment of spinal affections, viz., *rest*, being disregarded. The disproportionate strain upon the cervical portion of the spinal column is inconsiderable. There seems to be a tendency to attempt stretching and straightening of the spinal columns by traction upon this relatively short and fragile region of the spine. Not only is this region of the spine rather delicate, but traction upon it involves tension upon certain very important nervous, vascular and muscular structures of the neck.

In addition to the increased capacity of the spinal cord, incidental to extension of the spinal column, there is an increase of capacity due to a thinning of the various intervertebral structures. The straightening out, the stretching and unfolding of the various ligaments of the spinal column enhance the aspirating effect upon the spinal column as a whole as well as upon the spinal canal. That stretching of the cord is not the essence of the benefical result is, I think, conclusively shown by the circulatory effect of extension. Stretching a nerve does not heighten its functions, on the contrary, it inhibits them temporarily. The results of stretching the sciatic nerve show this.

In considering the mechanical treatment of spinal irritation by extension of the spine, it is necessary to consider the fact that, according to my theory, it is not necessary to bring to bear upon the spinal column extreme and painful tension, it being only necessary to bring about such a degree of lengthening of the spinal column as will secure the aspirating effect which I have described. It is in spinal irritation that the aspirating effect produced by extension in the anterior curved position is especially indicated, and it is here that the most surprising results are often obtained. As an illustration of the benefits to be derived from the method, I will briefly recount a case which is at present jointly under the care of Dr. Stillman and myself.

The patient, a neurotic young woman, twenty-two years old, was never very strong, but was fairly well until four years ago. At that time she had an attack of what was supposed to be typhoid fever. She did not recover perfectly from the so-called typhoid, but suffered with painful and difficult menstruation, radiating abdominal pains, chiefly localized in the right iliac region, with more or less intercostal neuralgia. After some months had elapsed, she fell under the care of Dr. K. Hoegh, of Minneapolis, Minnesota, a very competent surgeon and diagnostician. Dr. Hoegh detected disease of the appendix vermiformis and operated. The operation disclosed ulceration and adhesion of the appendix with a small pus cavity about it. The appendix was removed. The patient recovered promptly from the operation, but was not relieved of her abdominal pains. The cicatrix remained very painful with exacerbations of lancinating pain referable to it. Severe pain referable to the ovarian region, at times upon one side, then on the other, and symptoms equally painful upon both sides were experienced. There was severe intercostal neuralgia. During the ten days preceding menstruation the pain was severe, and lasted for a few days after menstruation had ceased. During the intervals the patient was comparatively comfortable. On examination I found the cicatrix left by the operation exquisitely tender. This tenderness, however, varies from day to day and during the remissions of pain almost entirely disappears. The spine in the middle and lower dorsal regions was exquisitely tender. The characteristic points of tenderness were elicited in the course of the dorsal nerves. Abdominal pain was one of the chief subjective symptoms and was most marked beneath the free borders of the ribs.

After treatment for several weeks with tonics and counter-irritants without appreci-

able effect, I referred the patient to Dr. Stillman for treatment by extension upon the curved board. The relief obtained while the patient was under treatment was very marked. There was at no time pain while the extension was being applied. In every instance, even when the pain was quite severe, it disappeared entirely under extension. The interval of freedom from pain between the menstrual periods has been lengthened by the treatment, and the menstrual period itself has become quite natural and painless. Pain is no longer markedly localized in the cicatrix, and the latter is now quite tolerant to pressure. As the patient is still under treatment, it is as yet too early to say what the permanent effect will be; but I have every reason to believe that the result will be a perfect cure. I desire to state in passing that extension upon the curved board is an excellent means of restoring the equilibrium of the pelvic circulation and thereby relieving certain ovarian disturbances of a nervous or vascular character, dysmenorrhœa, etc. This is a point well worthy the attention of general practitioners.

Dr. Stillman has observed in his own practice a large number of cases of spinal irritation, caused either with or without organic spinal difficulty, which have been relieved in most instances, and, in a number of cases, completely cured by extension upon the curved board.

Exercising the muscles, and the application of electricity while the spine is at rest in the anterior curved position, are of great advantage. The static current is of especial value when used in this manner.

Opera House Block.

OPERATIVE TREATMENT OF CARCINOMA OF THE RECTUM.

BY CHRISTIAN FENGER, M. D.,

CHICAGO, ILL.

As to the part of a discussion of the subject of malignant diseases of the rectum I shall first say that the results of palliative and operative treatment cannot very well be compared, because each one serves its own limited field of usefulness. The palliative operations will be used where total extirpation of the carcinomatous tissue is either impossible or too dangerous to the life of the patient. Total extirpation should be resorted to whenever there is a possibility of removing all of the diseased tissue without taking the life of the patient.

We will first discuss the palliative operations, which all have the intention of doing away with symptoms of stenosis.

1. Linear rectotomy, as devised by Nélaton, and extensively practiced, especially in France, by Verneuil, Trêlat and others, consists in division of the posterior wall of the rectum for carcinoma in the median line backwards to the coccyx, and is done with either the knife or the cautery, the cautery giving more security against hemorrhage and sepsis. The effect of the operation is often a very beneficial one, in reducing the frequent, painful passages to few and painless ones. As to its dangers, Verneuil estimates the mortality from the operation at about five per cent., and he states that the suffering from incontinence is small. This operation can only be made use of in low carcinomas, where the finger can reach the upper border of the tumor, and the peritoneal cavity is in no danger of being opened. In regard to this matter, Esmarch states that in the majority of the cases of carcinoma low down, total extirpation is not only possible, but easy, and consequently ought to be preferred. It should be limited to cases where the wall of the bladder, the prostate gland, the uterus or the fornix of the vagina have been invaded by carcinoma, making total extirpation inadvisable.

2. Opening into the rectum from the ischio-rectal fossa above the carcinoma, as devised by Marshall, is practically making a posterior artificial anus above the carcinoma. Spontaneous fistulous openings in this place had taught Marshall that relief from stenosis symptoms took place. This operation, however, has never been resorted to to any extent.

3. Curetting of the carcinoma with the sharp spoon and cauterization of the scraped surface with Paquelin's cautery is another method. The curetting was devised by Simon, and the cauterization of the curetted surface, by Küster, who has practiced this method of late extensively. He advocates the method very strongly, saying that it affords great relief in inoperable cases. Of from twenty-five to thirty patients, only two died from peritonitis, and Küster estimates the mortality from the operation at about eight per cent. Many of his patients lived more than a year, and in a comfortable con-

dition. Küster has for years never performed colotomy in low carcinomas. The operation just described is applicable only to tumors low down in the rectum, because in the carcinomas above the line of the peritoneum, surgeons always run the risk of opening into the peritoneal cavity. Esmarch has seen cicatrization of a large carcinoma take place after this operation, but still calls attention to the dangers of hemorrhage and collapse following this method.

4. Lumbar colotomy, as devised by Amussat and Callisen, has been extensively practiced by English surgeons, but is now rapidly losing ground and being replaced by the more modern modifications of inguinal colotomy. The mortality from the old statistics was high, between thirty and forty per cent. This mortality has decreased considerably of late, so as to enable Cripps to report fourteen cases without a death. There are certain objections to the method, sufficient to prevent its future use. Prominent among those objections is the difficulty of finding the colon and opening into it at a place not covered by the peritoneum. The descending colon frequently has a mesentery, and it often necessitates great distension to find sufficient space to open into the bowel without opening the peritoneal cavity. The wound is always a deep one, and the artificial anus is in an inconvenient place for cleaning away the feces, except in patients who are unable to get out of bed. It is impossible to prevent part of the fecal matter from passing down to the carcinoma, and causing the usual irritative effect on the ulcerated surface; and consequently it does not relieve the pain and tenesmus. The advocates of the operation, such as Henry Morris, claim for lumbar colotomy a wider application, as, for instance, in carcinoma of the sigmoid flexure or lower portion of the descending colon, where inguinal colotomy would give no relief. Knies' modification of inguinal colotomy is practicable on the transverse colon as well as on the cæcum and ascending colon, thus making this claim of advantage somewhat doubtful.

5. Inguinal colotomy, as devised by Littré, or laparo-colotomy, is rapidly gaining favor. The mortality of the operation was in early times (Batt and Van Erkelen) even higher than in lumbar colotomy, being from forty-six to fifty-three per cent. This was the consequence of opening into the peritoneal cavity without antiseptic precautions. The introduction of antiseptic methods here, as in all other intra-abdominal operations, reduced the mortality to the neighborhood of five per cent. König reports twenty cases with only one death from peritonitis; Cripps twenty-six cases with only one death.

The attempts to perfect inguinal colotomy had in view, besides guarding against infection of the peritoneal cavity, to effect complete evacuation of the feces in the place of the artificial anus, so as to prevent any fecal matter from passing down into the carcinoma, thus preventing irritation and painful tenesmus, and, furthermore, to facilitate the washing out of the carcinomatous bowel from above. Closure of the lower bowel, as devised by Madelung, was thus abandoned, and Knies' method, as modified by Maydl, is the one nowadays mostly adapted to fulfill all the indications. When it can be performed in two stages it must be considered almost without danger from peritonitis, and its advantages, as stated by König, are the following: The operation is done openly, mostly outside of the peritoneal cavity, no fecal matter can pass over the carcinoma, and this can be easily irrigated and kept clean.

6. The radical operation, that is, the total extirpation of carcinoma, should always be done when it is possible to remove all of the diseased tissue without too great danger to the life of the patient. It is the only hope of a radical cure, and a number of permanent recoveries are on record. In the earliest period only low carcinomas were operated upon, as the dangers to life became almost insurmountable the higher up the carcinoma was located. Modern modifications, especially the sacral method of Kraske, has greatly reduced the dangers for the high carcinomas. The removal of part of the sacrum or its osteoplastic—that is, temporary—resection, as devised by Hochenegg, gives ample space for the removal of carcinomas even above the rectum and in the lower portion of the sigmoid flexure. Nevertheless it cannot be disputed that a considerable amount of preliminary operating in the high or sacral operation causes additional danger from hemorrhage, collapse and peritonitis in patients already reduced in vitality by the disease. If we want to consider the danger of the radical operation for carcinomas from a statistical point of view, we meet with a difficulty yet in the literature that the authors did not distinguish sharply enough between high and low operations.

In comparing the low and high opera-

tions, we find that the enormous mortality before Volkmann's time of over seventy per cent., the mortality has come down to thirty-six per cent. By comparing statistics from the literature in 1887, I have collected 272 cases, with a mortality of twenty-two per cent. In the hands of other operators, however, after that time the mortality has been lowered considerably. Thus König gives us a mortality of his operations, for the last six years, of sixteen per cent., and von Bergmann gives us a series of forty-six operations, with only three or four deaths; Cripps thirty operations, with two deaths; Hochenegg twelve operations (from Albert's clinic) with no deaths; Bardenheuer thirteen cases, with two deaths. It may be reasonable to conclude that the mortality of to-day, with proper selection of cases, may be estimated at between ten and fifteen per cent.

As to the number of radical cures, it is impossible from the literature to give an estimate, but I should expect a radical cure in about ten per cent. of the patients that survived the operation.

As to the functional disturbance, comparatively little is known, from the fact that little mention is made of the patient's condition in after years. König takes a rather gloomy view of the condition of those patients, and states that the functional results after the high operation are better than those after the low operation. Of twenty-one patients, he considers fifteen in an unsatisfactory state; always unclean except when constipated; and only six had tolerably good power of retaining the feces. Von Bergmann takes a brighter view of the condition of such patients, and so do most other authors; so much so that the functional condition of the patient is not permitted to interfere with the choice of operation between palliative and radical when there is a possibility of saving the life of the patient with the latter method.

—There is an instructive lesson in the English mortality returns from tuberculosis for the last forty years. In the ten years from 1851 to 1860 the number of deaths from tuberculosis in persons from 15 to 45 years of age amounted to 3,943 in every million; from 1861 to 1870 it had fallen to 3,711; from 1871 to 1880 it was 3,194; and from 1881 to 1887 it did not exceed 2,666. The decreased rate is more marked in the female than in the male sex.

FATTY TUMOR OF THE LABIUM.

BY A. HAMILTON DEEKENS, M. D.,
PHILADELPHIA.

Tumors of any kind, situated on the labia, are sufficiently rare to excite the interest of the medical profession. The literature on the subject is scarce, and I would direct the attention of those who are specially interested in this particular line to a paper shortly to be published by Professor Howard A. Kelly, of Johns Hopkins University, giving full statistics in regard to it. All students of Professor Goodell of this city will at once call to mind his interesting description of an immense fatty tumor of the labium, which he had photographed and illustrated in his book on gynecology.

The history of the present case is as follows: Mrs. B., sixty-one years old, gives a good family history. Her mother died at the age of ninety years, having had nine children, eight of whom are still living, Mrs. B. being the youngest. One rather curious circumstance is that four out of five sisters are ruptured, Mrs. B. among the number. Her rupture occurred about fourteen years ago while she was straining herself in hanging out clothes. It was on the right side, the same as the tumor. The tumor was first noticed by patient while in the water-closet seventeen years ago. At that time it was about the size of a pea, situated midway on the right labium majus. It was not painful, though pressure on it produced slight discomfort. Nothing more was thought of it for some time, although it was noticed that it was growing slowly. In 1876 it had reached the size of a chestnut and at times caused slight pain. She now showed it for the first time to her family physician who advised her to submit to an operation, though he refused to do it himself, as he was not a surgeon. The patient refused operation, however, and the tumor slowly grew until it had attained the size and very much the shape of a large lemon, with a pedicle about two inches long, causing her great inconvenience in walking and during micturition. She was obliged to keep it suspended in a bandage which was fastened round her waist. At times the tumor would commence to "burn," requiring cooling applications; and darting neuralgic pains would fly through the groin and radiate down the thigh in the right side.

Early last spring the tumor began to get sore at the end and ulcerations commenced. A month before I saw it it commenced bleeding very freely while she was at the water-closet, bright red blood, and the patient says she thinks she lost more than a pint of blood. The hemorrhage made her very sick and weak, but by using pressure bandages the bleeding was stopped.

I was called in on May 14, and found the patient in bed. On making an examination, I found what, at first in the dusky light of early evening, I took to be a complete prolapsus uteri, with an ulcerated cervix, but which I soon saw was a tumor of the right labium with a large cup-shaped ulceration on the end. It had a very bad odor. The patient looked weak and anemic and very cachectic, due no doubt to blood poisoning from the absorption of putrid matter from the ulcerations.

The tumor had been bleeding slightly at short intervals ever since the first hemorrhage. The patient said that for years she had been unable to go out with any pleasure, and had felt despondent and melancholy, the thought, and weight of the tumor weighing her down both mentally and physically. I advised immediate operation, which she consented to, and two days later I removed the tumor with the assistance of Dr. Charles P. Noble. The operation was done without ether, a ligature being applied firmly round the pedicle at its junction with the labium and half a grain of cocaine being injected into the substance of the tumor. At Dr. Noble's suggestion I passed the needle and ligature through, on each side of the main artery (which was a very large one), and securely ligated it. This rendered the subsequent operation practically bloodless. The pedicle was cut through as in the circular amputation of the arm, and the skin was sutured over the stump. The tumor gave distinct evidences of fluctuation, and might easily have been mistaken to be cystic in origin; but on cutting into it, it was found to be composed almost entirely of fat. It measured four and a half inches in length, by two and a half in width, and weighed seven and a half ounces. The pedicle was slightly over two inches long, and when the woman was standing it pulled the labium down until it reached about one-third of the way down her thighs.

The tumor did not make its appearance until two or three years after the climacteric had been fully established. I preserved the specimen, and left it temporarily at St. Mary's Hospital, for safe keeping; but I regret to say, that one of the nurses there, in her ardent zeal in the cause of cleanliness, disposed of it along with other pathological curiosities, and thus my chance for an interesting microscopical examination was lost.

The patient made an uninterrupted recovery and is now looking well and hearty, and, as she says, feels ten years younger than she has for a long time.

1638 Franklin Street.

HOSPITAL NOTES.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

SERVICE OF DR. ROBERT W. TAYLOR.

Eczema.

A married woman, about thirty-two years of age, who had had a suppurative periostitis of the nose following traumatism, came to Dr. Taylor a short time ago with a highly inflamed spot on the nose, which oozed very slightly and was covered in places with crusts. The appearance of the lesion suggested syphilis or a lupoid eruption; but the previous history of the patient, and a closer examination excluded this, and she was shown to the class as an illustration of a form of eczema which was common among children, and was induced by the passage of irritating discharges from a wound over a delicate and irritable skin. This brought up the question of the contagiousness of eczema, which the lecturer answered by saying, that eczema could not be considered contagious in the ordinary acceptation of that term; but that it was highly probable that the discharges from an ulcerated eczematous surface might, when infected by microbes, give rise to a contagious element.

This patient had been treated, so far, with the following ointment, which had acted very well:

℞ Balsam of Peru . . . Half a drachm
Lassar's paste . . . One ounce

According to the original formula, Lassar's paste consisted of two parts each of oxide of zinc and starch, and vaseline four parts, with a certain proportion of salicylic

acid; but Dr. Taylor at his clinic omits this latter ingredient.

Eczema Rubrum and Varicose Veins.

The next patient was a man twenty-five years of age, who gave no venereal or syphilitic history except a gonorrhœa eight months before, presented himself on account of several round, red, scaling patches complicating a varicose condition of the veins of the leg, which had existed for many years. At times these patches had covered the greater part of the legs, and similar lesions were found on other parts of the body. This man had always taken a good deal of beer; and an additional predisposing cause for his trouble was found in his occupation, which required him to be about a furnace. Engineers and firemen often had persistent eczemas of the legs with varicose veins; and old people who were fond of sitting and toasting their shins in front of a fire were similarly affected. This reddened, infiltrated, oozing surface was studded with small spots of ulceration, each of which might be the forerunner of an intractable ulcer.

In the treatment of this condition rest was all-important, and before the application of any dressings the affected parts should be thoroughly cleaned with a five per cent. carbolic acid solution. After these preliminary measures apply the following ointment:

℞ Camphor . . . . . Ten grains
Goulard's extract . . . One drachm
Lassar's paste . . . . . One ounce

Carefully graduated pressure with a roller bandage was an important feature of the treatment.

Lupus Erythematosus.

A Polish Jew, about thirty-one years of age, was next exhibited to the class on account of the diseased condition of the skin of the face, which began three years ago as a red spot in the hair follicles. At present there was an oval patch of thickened integument covered here and there with scales, and showing a tendency to cicatrize in the centre. Dr. Taylor said that the very chronic skin affections one was liable to meet with upon the face were: (1) Syphilitic lesions; (2) Lupus vulgaris, and (3) Lupus erythematosus. The latter affection usually began on the nose, but also elsewhere on the face, and this case, in its origin and symmetrical development appeared to be an example of that disease. There was no syphilitic history.

This case would be benefited by minute scarifications around the edge of the patch, and painting all over with carbolic acid under cocaine anæsthesia. After that, the following ointment should be continuously applied:

℞ Pyrogallic acid . . Half a drachm
Mercurial ointment } Each half an ounce
Zinc ointment . }

Syphilis or Lupus.

Another case to which the attention of the class was directed, was that of a man, fifty years old, who had been a hard drinker, and who gave no history of syphilis even after very close questioning. He had at present an inguinal adenitis, but no signs of old sores on the genitals. Six years ago, he said, a small pimple appeared on the left side of the thorax, and it had been present ever since, extending symmetrically until now there was an irregular shaped patch, extending from just above the crest of the ilium as high as the eighth dorsal vertebra. The patch had a gyrate outline, and its centre showed cicatrization and pigmentation. Such a chronic tubercular eruption, Dr. Taylor said, was either syphilitic or lupoid; but both the appearance and its position were against its being the latter. He was therefore inclined to consider the case one of syphilitic origin; but the question could only be decided by the application of the therapeutic test. He thought mixed treatment would materially improve his condition.

Chancre.

Another interesting object-lesson in dermatology was found in a patient, twenty-seven years of age, who had a chancre of ten days' duration, showing the characteristic cartilaginous hardness and projection of the mucous membrane of the prepuce, belonging to such a lesion. He also had an acne and a rosacea of the face, showing the enlarged follicles already described in a previous lecture.

Acne.

The last illustration selected for Dr. Taylor's lecture was a boy of eighteen years, who had, scattered over the face, a papular acne with comedones.

The treatment consisted in scouring the face with carbolic soap, and then washing with a three per cent. carbolic acid solution, after which the following ointment should be applied:

℞ Resorcin
Sulphur, of each, ... half a drachm
Zinc ointment . . . . . one ounce.

PERISCOPE.

Nature, the Best Accoucheur.

Dr. J. H. Gardiner, in the *Canadian Practitioner*, August 16, 1890, says: I am a general practitioner of eleven years' standing; and for at least eight years of that time I have attended from ten to twenty cases of confinement monthly, with the following results: I have had six deaths during the puerperal period; two from embolism, two from puerperal inflammation, one from typhoid fever, and one from shock caused by a large loss of blood at time of birth, and a sudden chilling from open window on a frosty night in October, two days after premature birth of twins. Six of my patients have suffered from pelvic cellulitis; at least four of these belonging to families with a tubercular diathesis. Four or five others have recovered slowly from causes unknown. All others have been well enough to be up and around by the ninth or tenth day. I have seen one case of puerperal convulsions in a very mild form, and in two or three cases I have had a post-partum hemorrhage.

I always wash my hands with soap and water on entering the lying-in room, and if I have been attending any suspicious surgical or medical case, use carbolic acid in the water. I use either sweet oil or lard, or whatever other substance I can get in the house where I am attending, for lubricating purposes, both for hands and instruments. I am careful to see that all clots and portions of the placenta are removed, and that the patient is free from all bloody or wet clothes, and also that the bed is clean and dry, before I leave the house. I know of one case in which the cervix uteri was ruptured, but the patient refused to have it operated on, and she has since borne children, but never complained of any inconvenience from the tear. I have once stitched a ruptured perineum; in all other cases nature has performed the cure to the satisfaction of myself, the patient and the husband. I do not know whether specialists on women's diseases would be pleased or not. I am sure that, from the amount of violence I have had to resort to in some severe forceps cases, considerable bruising must have resulted to the soft pelvic structure; but nature, in all forceps cases save one, effected a cure in the usual puerperal period. The exception was one in which cellulitis followed with perfect recovery, after six months in bed. In severe cases I always examine my patient to ascertain if much damage has been done, and if the parts are very much bruised, I order, on the third day, a warm carbolic injection. I also use this in all cases, if the discharges become at all offensive, and generally instruct the nurse to use a little carbolic acid in the water she uses to bathe the patient with.

Now, what are the causes of puerperal inflammation, or puerperal septicemia? In order to answer this, it is necessary to study the woman before delivery, and the changes that have taken place during the nine months' growth of the fetus; also, how nature restores the normal condition of affairs, whilst guarding with jealous care the well-being of the patient.

The first period is one of building up—of growth. The second period, one of breaking down—of decay. During the first period, large quantities of adventitious tissues are formed; these being no longer wanted, have to be removed. In the second, nature's disinfecting and excretory apparatus are taxed to their utmost, and all that is asked by her is a fair field and no favor. Give the skin, the lungs, the kidneys, the bowels, and the uterus a fair show, and in ninety-nine cases out of every hundred no other treatment will be necessary. But chill your patients, and stop the action of the skin, and the kidneys, bowels, uterus, and even the lungs, will become engorged, and in time paralyzed. The mammary glands will cease to secrete, and your patient will have puerperal fever. Restore the secretions of these parts, and the patient is better. Again, introduce some source of septic poison into the vagina or uterus, and it may become absorbed, and the same result follows. The same may be said of the lungs or bowels. In every case the strictest care is required, always remembering that nature, as a rule, is the chief agent, and all that the accoucheur can do is simply, where she fails, to aid her in her efforts, never to retard her in her work by injudicious meddlesomeness

or criminal carelessness; and do not ascribe to art that which can be done, and is done, in a far more effective, if less expensive, way. A general practitioner attends all classes of cases, and strict care should be observed; but it is only in a very few instances, such as erysipelas, pyemia, or septicemia, that any special care is necessary. And I think it safer to refuse to attend cases of confinement, if you have a well-marked case of puerperal fever.

Prophylaxis of Contagious Diseases.

The *Therapeutic Gazette*, August, 1890, says: According to the Paris correspondent of the *Medical Press and Circular* (June 18, 1890), at the Académie de Médecine, M. Grancher (Pasteur's principal assistant) spoke at great length on the prophylaxis of contagious maladies, which he considered to be one of the most important questions of contemporaneous medicine. To realize this influence we have two means at our disposition—isolation and antisepsis. In surgery and obstetrics, he says, antiseptics seemed sufficient, as the problem is relatively simple, since it is reduced to the protection of a wound. In medicine, the question is more difficult, and isolation was the method recommended and employed by the majority of medical men. But there is *isolation* and *isolation*—as was well perceived by the physicians who had charge of children's hospitals in the matter of the special wards for diphtheria and measles—which did not render the services anticipated. At the Hôpital des Enfants Malades in Paris, for instance, the contagion of diphtheria and measles did not diminish consequent on the creation of special wards. Certainly the number of external cases diminished in the general wards, but the germs of these two affections kept up by contagion the rate of morbidity and mortality. The efforts against contagious diseases, consequent on the method of isolation, have not been crowned by the success desired, and M. Grancher thought that medical antisepsis would render very signal service. Isolation could never suppress all chance of contagion, and without antiseptics it would, on the contrary, create a new source of danger—as when patients suffering from the same malady are packed together in the same ward, the secondary affections of that malady or its complication would become multiplied. In the measles wards M. Grancher found that broncho-pneumonia and diphtheria raged with intensity, creating thus the true danger of the primitive affection. Fully convinced of this fact, he wrote in 1888 to the hospital administration, asking for three things—a perforated metallic screen, a wire basket for each bed, and a supplementary nurse for each ward. The screen was folding, and surrounded the bed so that each child was isolated completely from the others, and yet not entirely deprived of their company, as the perforations were large enough for it to see all that was going on around it. The wire basket had for object the easy disinfection of all the plates, cups, etc., which were used by the patient. When the nurse brought the child its food, she spread on the bed an india-rubber napkin, and the repast finished, the whole was taken away in the basket and plunged as it was into boiling water. The supplementary nurse had sole charge of all the children placed thus in quarantine, and was not allowed to go near any other. By this method he obtained a reduction in the number of internal cases of contagion, but this reduction was much more marked in diphtheria than in measles.

Injection Test for Ruptured Bladder.

Mr. W. J. Walsham, assistant surgeon to St. Bartholomew's Hospital, in the *Lancet*, August 2, 1890, says: The value of this test was well illustrated by a case recently under my care at the Metropolitan Hospital. The patient, an elderly woman, had been knocked down and run over by a van, one of the wheels passing over the lower part of her abdomen. On admission she was found to have a facture of the pelvis, involving the sacro-iliac joint, with considerable separation of the pubic symphysis. She was quite unconscious and in an extremely collapsed condition. The skin was cold and clammy, the pulse small and weak, and the respiration feeble and sighing. When I saw her shortly after her admission, she was still deeply collapsed, but had slightly recovered consciousness and complained of great pain in the lower part of her abdomen. It was doubtful how much urine she had in her bladder at the time of the accident, since, having only partially regained consciousness, she could not answer this question satisfactorily. I passed a silver male catheter, but only a small quantity of blood-stained fluid escaped, and on depressing the handle the points seemed to be felt more easily than normal

by the hand above the pubes. The history of the accident, the collapsed condition of the patient, the fracture of the pelvis, the separation of the pubic symphysis, the pain in the hypogastrium, the escape of only a small quantity of bloody fluid on the passage of the catheter, and the apparent abnormal projection of the point of the catheter above the pubes when the handle was depressed, led me to suspect a rupture of the bladder. Seeing the importance of early recognizing this injury if treatment by suture of the ruptured viscus is to have a fair chance of success, I determined to explore the bladder by an incision above the pubes. Before doing so, however, I thought it as well to try the injection test. I therefore forcibly injected a measured quantity of water into the bladder through a full-sized catheter tightly fitting the urethra, and then after a few minutes drew it off, taking care to prevent any loss. The same amount, within a drachm or so, as that injected was returned. In the face of this test, therefore, I resolved to wait a few hours before undertaking any active measures. Suffice it to say that in the course of the evening the patient passed urine naturally. After this she had no further bladder trouble, and made an uninterrupted recovery.

Danger in Exercise.

The *Providence Journal* quotes Dr. Patton, Chief Surgeon of the National Soldiers' Home at Dayton, Ohio, as saying in an interview in Pittsburgh, the other day, that of the 5,000 soldiers in the Dayton home "fully 80 per cent. are suffering from heart disease in one form or another, due to the forced physical exertion of the campaigns." And he made the prediction that as large a percentage of the athletes of to-day will be found 25 years from now to be victims of heart disease, resulting from the muscular strains that they force themselves to undergo. As for the likelihood of exercise to prolong life, it may be said that according to the statistics of M. de Solaiville there are more people living in France to-day who have passed the age of 60 than there are in England, the home of athletic sports. And there is probably no nation in Europe more adverse to muscular cultivation for its own sake than the French. Great athletes die young, and a mortality list of Oxford rowing men published a few years ago showed that a comparatively small percentage of them lived out the allotted lifetime. Dr. Jastrow has demonstrated in some very elaborate statistics that men of thought live on an average three and a half years longer than men in the ordinary vocations of life.

Gastro-Intestinal Lesions and Tuberculosis.

In a very thorough and carefully prepared paper, in the *Dublin Journal of Medical Science*, August, 1890, Dr. Morin Rousseff discusses the relation of lesions of the gastro-intestinal tract to tuberculosis. He briefly describes the findings at the autopsy in thirty-four cases and gives the following as his conclusions: 1. In chronic pulmonary tuberculosis the intestinal tuberculosis depends upon the state of the stomach. This organ modified in its structure by either parenchymatous or interstitial inflammation, or by amyloid degeneration, can no longer discharge its functions normally, and cannot be an obstacle against the invasion of the bacillus. 2. Intestinal tuberculosis is always preceded or accompanied by a pathological condition of the stomach. A capital point in the treatment of tuberculosis should be attention to the state of the stomach, either in preventing the modifications which may appear or in treating these modifications, for intestinal tuberculosis, added to the pulmonary, quickens the course of the disease. 3. Man, on account of his life being more abnormal, and gastric troubles resulting from this, is oftener attacked by intestinal tuberculosis than woman (during the course of pulmonary tuberculosis). 4. The age of the patient, the degree of pulmonary lesion and its duration have no very great influence on the production of intestinal tuberculosis. 5. Pulmonary tuberculosis by itself cannot directly produce a gastritis which would permit of a tuberculization of the intestine.

Pambotano a Substitute for Quinine.

The *Deutsche Medicinische Wochenschrift*, July 30, 1890, states that Dujardin-Beaumetz, at the February meeting of the Académie de Médecine, presented a substitute for quinine, the bark of pambotano, which, administered in decoction, has, according to investigations by Dr. Valude, controlled the paroxysms of intermittent fever, even in cases in which quinine failed.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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LISTER AND LISTERISM.

At the recent meeting of the International Medical Congress, one of the most notable addresses made was that by Sir Joseph Lister, in regard to the present position of antiseptics, and the most striking feature of the address perhaps was the definition of his present position in regard to the methods of securing asepsis in wounds. To the surprise of many and the gratification of some, he announced that he had abandoned the use of almost all of the details which once formed a part of the antiseptic method known by his name. He went so far as to say:

"As regards the spray, I feel ashamed that I should ever have recommended it for destroying microbes. I once trusted the spray implicitly as an atmosphere free from living organisms. The floating particles in the air may be disregarded in our surgical work, and therefore we may dispense with antiseptic washing and irrigation, provided always that we can trust ourselves and our assistants to avoid the introduction into the wound of septic defilement from other than atmospheric sources. We abandoned the spray three years ago and compensate its absence by antiseptic washing and irrigation and surrounding the seat of operation by widespread towels wrung out of antiseptic solutions. The spray had its use as an irrigator of the surgeon's hands, but if we give up all washing of the wound with the spray our vigilance must be redoubled. I believe the task of giving up all, if assistants were impressed with the importance of their duty, would not prove a difficult one. I have never ventured to make experiment on any large scale, though I have long had it in contemplation. We have already made considerable approaches towards its completion. Our wounds are not subjected to the spray, while carbolic acid has given place to the less irritating solution of corrosive sublimate. Drainage is not so extensive as it used to be, but it would be a grand thing if we could dispense with it altogether."

These utterances have furnished occasion to certain writers to glory over what they speak of as Professor Lister's recantation. With such comments we have no sympathy, and think that they are as unwise as they are unkind. All persons who have for a long time believed that Lister and his followers were mistaken in attaching so much importance to the minute details of his method, will be glad to find that he has himself become convinced of the correctness of this view; but this change of his ought to be looked upon as the evidence of an honest and wise mind, and it should be treated accordingly. Lister's former methods, even with the amount of error they contained, have been of incalculable value to mankind. They have revolutionized the practice of surgery; they have made familiar and successful operations which were

once dreaded or altogether avoided, and they constituted the foundation for a superstructure of absolutely clean surgery which, however it may have been understood in theory before, was rarely carried out in practice. We believe that his present position is more in accordance with scientific facts than his former one was, but the theoretical superiority of his present position in no way militates against the value of the one which he occupied fifteen years ago. That was one of the stages of development. This is another; and it is possible that he and the whole surgical world may still further advance as time goes on. But, as it stands now, Lister deserves and, we have no doubt, will receive the gratitude of all intelligent and fair-minded surgeons for what he has accomplished, and their respect for the candor with which he has turned away from opinions which once seemed to him very important, because facts, not always graciously presented, have convinced him that they were incorrect.

COELIOTOMY.

Dr. Robert P. Harris, of this city, who is known all over the world for his researches in connection with the operations upon the abdominal cavity and its contents, and especially in regard to pelvic operations in women, has recently written a pamphlet in which he discusses the impropriety of the use of the word laparotomy to indicate an incision through the walls of the abdomen in general, and the propriety of substituting for this term coeliotomy. By a study of the history of the word laparotomy, its etymology and the true anatomical signification of the roots from which it is derived, he shows unmistakably that the term is not a correct one. Naturally he then urges the abandonment of this term and the substitution for it of the term coeliotomy, which is etymologically correct.

This is an interesting manifestation of a desire for accuracy, and deserves the attention of surgeons and writers all over the world, which we have no doubt it will receive. In the interest of precision of terms, we would second his suggestion that the word coeliotomy be used in place of the word laparotomy, and thus aid the effort of Dr. Harris to introduce a correct term instead of an incorrect one.

FROGS IN THE STOMACH.

The re-appearance of the old story about a frog in a human being's stomach led to an inquiry of a subscriber to the REPORTER, in Columbus, in regard to the circumstances attending it, and the statement that a certain physician of that place was responsible for the air of reliability given to it in the daily papers of August 9, 1890. We are informed that this physician is supposed to be an eclectic, probably a graduate of the institution of that sect in St. Louis.

Of course, no intelligent physician could become responsible for such an absurd notion as that a frog could live in the human stomach for any length of time, or that the metamorphosis of a tadpole could take place in that organ. The delusion that living air-breathing animals can exist for some length of time in the stomach is a pretty wide-spread one, but goes no further than the region of considerable ignorance. All stories of this sort are, of course, absolutely false. It is possible that one might be started by an attempt on the part of a physician to play upon the imagination of a patient who entertained a delusion of having an animal in the stomach; in which case bystanders, or others not in the secret, might suppose that the performance was a genuine one, and that such an animal had been really removed.

It is rather a pity to have the newspapers starting accounts of this kind because it encourages the development of delusions on the part of persons who have—as most people have at times—curious or unaccountable sensations within the abdomen, and medical

men might take occasion to correct any misunderstanding of the kind we have referred to, when they have an opportunity.

HEARING WITHOUT EARS.

Dr. Richard Ewald, who is known as a most careful and skilful experimenter upon the brain, makes a most remarkable communication in the *Berliner Klinische Wochenschrift*, describing experiments which he had recently performed to ascertain the effect of total destruction of all the external and internal parts of the organ of hearing, except the internal auditory nerve and parts more central. By a most elaborate and painstaking operation, requiring for each side operated upon from four to six hours of time, Ewald removed from pigeons all of the hard and soft parts connected with the external ear, the middle ear and the labyrinth, and left nothing but the stump of the internal auditory nerve. The most remarkable result of this operation was the discovery of the fact that within a few hours these animals gave distinct manifestations of being capable of hearing. Ewald describes not only the steps of the operation performed, but the details of experiments by which he determined the interesting fact just mentioned.

Every precaution required by scientific accuracy seems to have been observed in these experiments, and the conclusion of Ewald—remarkable as it is—seems to be established, namely, that pigeons can hear without any ears. After these operations, however, he found that he could produce degeneration by cauterizing the root of the internal auditory nerves with a little croton oil or with some arsenic paste, and that in these cases the pigeons became totally deaf.

MANAGEMENT OF THE INSANE IN PENNSYLVANIA.

Through the activity and perseverance of Dr. Henry M. Wetherill, the Secretary of the Committee on Lunacy of the Pennsylvania State Board of Charities, there has been discovered in Venango County an insane man who had been kept chained for many years in a room by his father, and in a state of filth and squalor hard to describe. After personally discovering this unfortunate, Dr. Wetherill, acting for the Committee, had him removed by officers of the law and placed in the State Hospital at Warren, Pa.

There are probably extremely few instances of such ignorant and inhuman treatment of the insane in Pennsylvania, because for some time the Committee of which Dr. Wetherill is Secretary has been searching for and correcting them. But so long as one such remains the Committee will have room for the performance of an important service to the community. The State of Pennsylvania is to be congratulated upon the way in which the Committee has already discharged its difficult tasks, and every reason to expect that it will soon remove the last trace of the old methods of treating the insane in this State.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

PHILOSOPHY IN HOMŒOPATHY. Addressed to the Medical Profession and to the General Reader. By CHARLES S. MACK, M. D., Professor of Materia Medica and Therapeutics in the Homœopathic Medical College of the University of Michigan at Ann Arbor. Small 8vo, pp. 174. Chicago: Gross & Delbridge, 1890.

The title of this little book is attractive. Medical men have long wanted to know how homœopaths could defend their system on philosophical grounds. The present author attempts to do this. He points out the difference between inductive and deductive philosophy; the former collating individual facts and inferring from them general principles or laws, the latter assuming that certain principles are correct and applying them to particular cases. The former has given us all the physical sciences and all that is truly scientific in medicine. The only claim that the latter, as applied to medicine, can have is that its principles are inherently and necessarily true. Dr. Mack suggests that the starting point of the deductive method may be that which appeals to the reasoning faculty as forcibly as do material facts to the senses by which they are perceived. Now it appears from Dr. Mack that the essential principle of homœopathy is *similia similibus curantur*, which, it would seem, he would have his readers infer "appeals to the reasoning faculty as forcibly as do material facts to the senses by which they

are perceived." In this he attempts to make the so-called law of similars one of the primary principles of consciousness. How far removed it is from such a dignity is evident from the fact that ninety-nine persons in a hundred see no reason in it. The attitude, therefore, of Dr. Mack, who insists so repeatedly upon the reasonableness of *similia* and the unreasonableness of doubting it, reminds one of the story of the man on a jury, who "had against him in the verdict eleven of the most obstinate men he ever saw in his life."

Dr. Mack asserts that the "law of the similars" is the only law of cure. If this were true then it might follow, as he appears to believe it does, that no matter how often a man may recover, either by the efforts of unassisted nature or under the care of the physician, he has not been *cured* unless he has been treated homœopathically. He admits that an anthelmintic may be given a patient suffering with tape-worm and, the parasite being expelled, the man recover. But he has not been *cured*, because he has not been treated in accordance with the "law of similars." We give these specimens of the author's reasoning to show how, starting with the assumption that there is a law of similars, he comes to juggle with words in order to explain away the results obtained by scientific physicians. Every one who studies disease in the light of physiology and pathology knows that in few instances do medicines cure disease in the sense of being antidotal to it—their function in most cases is to assist the organism to recover. Most sick persons would recover without medication; nature cures. But under the guidance of a skilful physician they recover more promptly, with less suffering during their illness and with less damage as the result of it. The doctrine that medicines are antidotes to disease is a relic of the barbarous age in which disease was looked upon as possession by evil spirits, and when, consequently, something was sought for to exorcise the spirit.

The author certainly has not written his book in a philosophical spirit. His iteration and reiteration of the word cure, frequently printed in italics and sometimes in small capitals; his repeated declaration that *similia* is the "law" of cure, and the "only law," utterly ignoring the numerous exceptions which show conclusively that it is at most only a rule or method of practice, lead one to suspect that his purpose has been to persuade his hearers by awakening their sympathies and arousing their enthusiasm, rather than by appealing to their reason and so convincing them. In other words, the book is a special plea, not a sound argument. But perhaps he has made the best showing that is possible.

DISEASES OF WOMEN AND ABDOMINAL SURGERY. By Lawson Tait, F. R. C. S., Edin. and Eng., LL. D., Prof. of Gynecology in Queen's College, Birmingham, etc. Vol. i, 8vo, pp. viii, 547. Philadelphia: Lea Brothers & Co., 1889.

The appearance of a work upon gynecology, by Mr. Tait, will naturally attract wide attention and interest. The position which he has attained in the medical world, his very wide experience as practitioner and operator, and his peculiar method of stating his opinions, ensures for any book emanating from him a wide circle of readers. The title of this book promises a systematic treatise upon the diseases of women, and indicates that the sections devoted to abdominal surgery will be especially elaborated. In the present volume the disease of the Mons Veneris, Vulva, Vagina, Urethra, Bladder, Uterus, Broad Ligaments, Fallopian Tubes and Ovaries are considered. In the preface Mr. Tait says: "My chief object is to offer the results of my own experience in as condensed a form as possible. If the present edition is to have any value it can arise only from what I have to say of my own work." Hence the book must be looked at from this standpoint, and not from that of a systematic treatise.

The first 216 pages are devoted to the diseases of the external genitals, bladder and urethra, vagina and uterus. The treatment generally is cursory. The amount of space devoted to each topic depends less upon the importance of the subject than upon the elaboration of any peculiar views held by the author upon etiology, pathology or therapy. The opinions of authorities are omitted, or are mentioned in contradistinction to his own. The matter is presented in general from the standpoint of the clinician. Anatomy and pathology are very lightly dwelt upon; as are likewise methods of examination and treatment. Many opinions of the author differ widely from those of other medical men, and hence will elicit the more thought and discussion. For example, vaginal hysterectomy for cancer is unqualifiedly condemned, partly because of the primary mortality, but principally because in the author's opinion that the disease always recurs, the apparent exceptions being instances of erroneous diagnosis. In operating for "vaginal" fistula all the elaborate apparatus devised by Sims, Simon and Bozeman is discarded; the instruments used are a straight knife, a curved-handled needle and Fergusson's speculum. The stitches are applied by the use of the finger-tips only, without the use of the speculum.

The remainder of the book is devoted to a consideration of the Broad Ligament, Fallopian Tubes and Ovaries and their diseases, embracing Ectopic Pregnancy. The theory of menstruation, the inflammatory diseases of the uterine appendages and ectopic gestation are especially elaborated.

The author has been such a prolific writer that those who have kept pace with his previous productions will find little that is novel. For such the present work will prove of use chiefly as a collection and re-edition of former separate treatises. The plan pursued by the author of giving only his own views prevents the work from being a complete treatise, and makes the *ego* decidedly prominent. Nevertheless, it has many decided advantages, not the least of which is that the treatise is a distinct contribution to literature, being the matured judgments of a man of force and of the widest experience, and not a mere compilation. The book is addressed to practitioners rather than to students. While it is not to be expected that all it contains will be accepted by medical men, yet the present volume will unquestionably exert a great influence for good, more especially because of the wide disseminations of the teachings it contains concerning the nature and treatment of pelvic inflammation and ectopic pregnancy. Perhaps in a negative way as much may be accomplished by impressing upon practitioners the dangers in cases of pelvic inflammations, of treating the cases upon mechanical principles, the abuse of the uterine sound, pessaries and intra-uterine medication.

—Peanut Oil has been found in samples of cod-liver oil sent to the Paris Exposition; and one of the officials remarked that to present such articles to compete for prize awards, dealers must have considerable boldness, strengthened by long impunity.

Notes and Comments.

Excision of Hemorrhoids.

In an excellent article in the *Annals of Surgery*, May, 1890, Dr. L. S. Pilcher advocates the employment of Whitehead's operation in the treatment of aggravated hemorrhoids. He does not do this indiscriminately, however, but with due regard for the conditions of patient and of surgeon which ought—as in every surgical case—to influence the choice of an operation. Personally he has worked on the lines laid down by Whitehead and has found the various steps of the operation comparatively easy of execution, but taking much more time than the enthusiastic representations of the Manchester surgeon would have led one to expect. Some of this prolongation of the operation is due of course to the natural inexpertness of one who is new to the operation; some is due to the aggravated character of the cases with which he has had to do. Most of the time is used in securing hemostasis and to have to apply a ligature to twelve or more arterioles in a case has been his usual experience. There has been no special trouble or difficulty about any part of the work, it has been simply time consuming. He has not tried the deep sutures of Lange nor the buried shoemaker's stitch of Marcy; but thinks he will, in future cases, with a view to their value in controlling bleeding and shortening the time required for the operation.

The results, however, have been all that the more enthusiastic partisan of the operation could have claimed for it. A perfectly healthy outlet to the rectum, as far as the mucous membrane is concerned, has been secured to all his patients. The contractile powers of the sphincters in the worst cases, long weakened by constant distention, has, of course, demanded time for its restoration. In only one case, at the end of a year, is there still some lack of power in the sphincteric grip to wholly control the escape of gas or fluids, but in this case the improvement in the general condition of the parts, and the resulting comfort, is so great that the slight infirmity that still persists is regarded as insignificant.

The certainty, the absoluteness and the perfection of the cure are the points which have struck Dr. Pilcher as most clearly shown in the cases which he reports. The procedure is an ideal one surgically inasmuch as it combines immediate and radical removal of all diseased tissue, with immediate closure of the wound and subsequent union by first intention. Dr. Pilcher does not think, however, that it can be called an operation easy of performance. He would say that it was an operation not to be lightly undertaken by one not accustomed to delicate operative manipulations, or without the presence of good assistants, good light and appropriate instruments. Doubtless, as in the hands of the eminent surgeon who has introduced the operation, natural manipulative aptitude, extensive general surgical training and the special skill resulting from the repetition of the operation hundreds of times, would reduce the difficulties of this operation to a minimum and render it neither tedious nor bloody.

It is not, however, what the operation would be in the hands of such an operator that is to be considered, but rather what it would be found to be by the operator of average experience and opportunities. Dr. Pilcher's judgment is that, in the hands of the latter operator, the operation in aggravated and extensive piles would be found to often justify the opinion of Kelsey that it is "naturally difficult, tedious and bloody." It ought to be ranked as a major operation. Especially ought it to be ventured upon with caution in the case of patients who are very weak and unfit to be subjected to a prolonged operation, or in whom by reason of renal or pulmonary disease prolonged anæsthesia would be dangerous. The operation is one which appeals much more to the operative bent of the general surgeon than to that of the rectal specialist, and he is not surprised that by the latter class of practitioners it is almost universally condemned. To one, however, who is accustomed to dealing with vascular tissues, to whom the hemostatic forceps and the ligature are ready and frequent servitors, to whom the preservation of cut surfaces from septic contamination is a thing of easy routine, by whom the coaptation of cut surfaces, subsequent primary union, the avoidance of tissue necrosis and the limitation of suppuration are always eagerly sought for, to such the technical difficulties inherent in the ablation of hemorrhoidal tumors after the method of Whitehead will seem trivial obstacles beside the ideal perfection of the results to be gained. The operation is based on sound surgical principles and it is a valuable and permanent addition to operative

surgery. The frequency with which it will be resorted to will depend much on the individual surgeon; it will be more frequently employed by surgeons who are doing much general operative work, and it has qualities that will cause it to be more frequently resorted to, as multiplied experience brings to the operator increased skill.

Dr. Pilcher's paper closes with useful suggestions in regard to the way in which Whitehead's operation should be carried out in order to secure its best results, for which the original paper should be consulted.

Antiseptic Midwifery Ridiculed.

Under the head of "Counsels of Lucina," who was the goddess of childbirth, a writer in the *Journal de Médecine*, of Paris, April 20, 1890, gives the following advice to young practitioners:

On rising in the morning, take a full bath of soap and water; the scrubbing should extend to the most private parts. Persons with a full head of hair should have it epilated every month, for it has been demonstrated that the hairs furnish shelter to quantities of microbes. The same precautions are necessary for the beard and other hairy regions of the body. The eye-brows and eye-lashes being indispensable to the hygiene of the eyes, should be respected, but they should be well scrubbed every morning with Van Swieten's solution. The nasal cavities should be carefully swabbed out; it would even be prudent to stuff them during the day with iodoform gauze; as respiration can go on quite well by the mouth.

The ears should be carefully douched by a specialist familiar with the direction of the external auditory passage; and it would be wise also, with double-current catheter to wash out the middle ear through the Eustachian tube. The mouth being a frightfully septic cavity, it should be divested of all useless ornaments. The teeth should be extracted and replaced by artificial teeth, which the physician should wear as little as possible, and only to eat with, or when he goes to see his female patients; at other times these little masticatory apparatuses should be soaking in a strong carbolic solution. It will also be advisable to make every morning a thorough lavement of the stomach and rectum, for these cavities often emit gases which breed bacteria, one of which may infect several patients.

The carriage in which the physician visits his patients should every morning be washed inside and out in a full stream of water in the presence of the master, who should superintend the work of his ignorant servants, and the wheels should be well greased with carbolized oil changed every eight days. A spray-producer should be placed under the coachman's seat and keep up a constant antiseptic vapor inside the carriage. The carriage-box should be replaced by a drying stove, which should be always in operation. Whenever the physician has occasion to visit one of his lying-in patients, he should change his clothes and place those that he has taken off in the stove in question. The same garment should never be worn in the sick-room of two consecutive patients without being disinfected. If accidentally one of the wheels touches any excrement, it should be at once washed. It would be well to have the wheels made of iron, so as to be disinfected by the flame after such an accident.

Whenever the physician enters a patient's house, he will take care to demand immediately a pair of rubber slippers, which he will put off on leaving the house; otherwise his boots will become impregnated from the carpet with a prodigious quantity of microbes. He will also take pains not to shake hands with any one, for this would be to invite infection by such contact. Whenever a patient has died of any affection supposed to be microbic, the physician should abstain from all visits for at least a week, which should be spent on top of the Eiffel tower or near his mother-in-law, both of which have recently been classed among the best microbicides.

From time to time the physician may dine in company, but he will be served apart on a little table, so as not to be infected by contact with neighbors. He must eat with his fingers, because the disinfecting stove is not yet used for keeping the silver, which may therefore be covered with microorganisms. He may, however, bring with him his dishes and other implements for eating previously disinfected. He should abstain from all food that has not been boiled and drink only distilled liquors.

Quack Medicines.

According to the *Münchener medicinische Wochenschrift*, July 22, 1890, the local board of health of Carlsruhe exposes the following proprietary remedies:

Dr. Schipek's oil to improve hearing, highly recommended by a druggist of Vienna for noises in the ears, a mixture of various oils. Price about 90 cents, drugs worth 15 cents.

Dr. Hartmann's remedies for diseases of the spinal cord, consisting of a fluid for local applications (perfumed tincture of soap), powders for internal administration (bromide of potassium), drops (equal parts of tincture of iron and aromatic tincture) and powders (bicarbonate of sodium stained with a preparation of iron) for hip-baths. The treatment is directed by mail and is applicable to all "private" diseases, especially affecting the nerves, spinal cord, skin, kidneys and bladder. It lasts from three to four months, and costs about $12.50 a month, payable in advance. The drugs are worth about $3.25.

English wonderful balsam, consisting of tincture of benzoin colored red by sandal wood, recommended for various diseases. The price is 25 per cent. higher than the regular cost.

Electro-homœopathic star remedy, sold by an apothecary in Genf, for the cure of all diseases, consists of eight small vials, containing pellets, and three bottles of "white, red and blue electricity." The pellets consist principally of sugar. The bottles contain a feeble alcoholic vegetable tincture. The entire outfit is sold for about $3.50.

Hospitals for the Insane in Pennsylvania.

According to the Report of the Pennsylvania State Committee on Lunacy issued August 12, 1890, the institutions for the care of the insane in Pennsylvania are located at Harrisburg, Danville, Norristown and Warren, all directly under the control of the State and known as "State" hospitals. In addition, there are the Western Pennsylvania Hospital, at Dixmont, eight miles west of Allegheny; Philadelphia Hospital, at Philadelphia; Friends' Asylum, at Philadelphia; St. Francis Hospital, at Pittsburgh, and Burn Brae, Clifton Heights.

The insane confined in institutions of all classes in Pennsylvania is 6,884, of whom 3,510 are males and 3,374 females; 6,702 are white, 182 colored, 4,352 natives, 2,287 foreigners and 245 unknown. The number in each hospital was, on September 30, 1889: Harrisburg, 734; Danville, 888; Norristown, 1,827; Warren, 725; Dixmont, 270; Western Pennsylvania, 704; private, 514; private houses, 33; Philadelphia, 811; Almshouse, 624; prisons, 24.

The total expenditures for the year were: Harrisburg, $139,908.74; Danville, $187,653.77; Norristown, $347,102.78; Warren; $126,424.77; Dixmont, $164,465.73; Friends' Asylum, $77,071.72; Pennsylvania, $179,847.57. The average weekly cost of current expenditure was: Harrisburg, $3.97; Danville, $3.55; Norristown, $3.67; Warren, $3.20; Dixmont, $4.09; Friends' Asylum, $13.23; Pennsylvania, $8.97½.

Food Preservatives.

Science, August 8, 1890, says, quoting from the *Brooklyn Medical Journal:*

The use of preservatives for articles intended for food and drink is an important one, both for the manufacturer and consumer. From a sanitary point of view, it is doubtful whether any of the preservatives ordinarily added to articles intended for human consumption ought to be encouraged. Laws exist in Continental European countries prohibiting the use of certain of these preservative agents. Salicylic acid is prohibited by most of them, and the manufacturers are there beginning the use of benzoic acid, which is preservative in small amount and is not easy to detect. After a discussion at a convention of chemists at Speyer, Bavaria, on September 10, 1888, the conclusion was reached that boric acid, as a preservative for foods, is to be regarded with caution. Sanitary authorities have generally spoken in stronger terms of the use of boric acid, and yet it enters into the composition of a large number of the preservatives in the market. Hirschsohn gives a description of several different boro-glycerides which he recommends for preserving foods. Boroglycerine is prepared by heating glycerine with boric acid, in the proportion of 124 of the former to 190 of the latter. He also recommends sodium, calcium and magnesium glyceroborates. These compounds are mostly tasteless, and quite soluble in water and alcohol. Magnesium borate is recommended as a remedy in throat affections. A. R. Rosen recommends the following method for preserving meats: Boric acid or its salts are dissolved in water and the solution is then frozen. The article to be preserved is then covered with this ice, with

the result that the meats are preserved after the ice melts. Dr. E. Polenske has made an examination of ten commercial preservatives intended for meats. Three of the ten contained sulphurous acid or sulphites; two contained borax, and five boric acid; one each contained alum, arsenious oxide, salicylic acid and free phosphoric acid; two contained glycerine, and two boroglycerine; three contained nitre and six common salt. The one containing arsenious oxide was the only one actively poisonous, but several of the others were decidedly objectionable. Indeed, we should object to the addition of anything to our meats which is not a natural ingredient of food or cannot be converted into a compound natural to the human body.

Johnstown Flood and Insanity.

One of the most interesting features of the recent report of the State Committee on Lunacy of Pennsylvania, is the statement in regard to the mental condition of the survivors of the disaster at Johnstown, Pa. It was a common remark at the time that many of the survivors of that great disaster would probably lose their reason; but this does not appear to have been the case. Only fifteen cases of insanity in any way referable to the effects of the great catastrophe have been discovered, and of these seven had been insane before the flood and had been restored. Of the eight who had not been previously insane, two were quite old and one was intemperate. Finally, seven of these insane persons recovered under hospital treatment. The Secretary says of these returns: "In reviewing this very small total the conviction is strengthed that the great and overwhelming trials of life are much less liable to overthrow the reason than the continuous worry and attrition of minor evils and unavoidable contact with depressing surroundings."

Rabies Scares.

The New York *Medical Times*, August, 1890, says editorially:

In a practice covering many years we have never seen a case of rabies in dog or man, and yet if we believe the papers they are now so common that they are treated in institutes organized for the purpose by the hundred and thousand. If a dog in the heat of summer has a fit either from the effect of heat or indigestion and snaps at any one with whom it comes in contact, he is instantly pronounced mad, the wound cauterized and the dog killed. If the dog were restrained for three or four days it would, if mad, die of the disease, and the fact of his real condition thus become fully established, while if killed the evidence is at once removed, causing that doubt and uncertainty, which would almost absolutely follow, to develop a nervous condition closely resembling the real disease and not unfrequently proving fatal. Keep the dog alive if possible for at least a week, and in nine cases out of ten the haunting fear of death by hydrophobia will be removed. The existence of hydrophobia is too well proved to admit of doubt. The benefit derived from the great discovery of Pasteur is an established scientific fact, but the bite of a dog, it should always be remembered, only communicates disease under certain conditions, and those conditions should be fully established during the life of the animal. Without the positive proof of rabies in the dog the person bitten may be harmless for months by a fear which is possibly groundless.

Eugenol.

The oil of cloves has for a long time been used as a local remedy for the relief of toothache, but no scientific investigation as to the actual value of the local application of this drug has yet been reported. According to the *Western Druggist*, Liebreich and Langgaard state that the oil of cloves applied to the uninjured skin first produced reddening and then anæsthesia. Recently, Dr. Leubuscher has determined the presence in oil of cloves of an active principle, which he terms eugenol.

Eugenol is a clear, dark yellow fluid, in its chemical composition allied to the higher phenols. In water it is insoluble, but readily soluble in alcohol and ether. It has an odor like the oil of cloves, and has also been described under the name of eugenic acid.

A Cigarette Four Months in the Lungs.

Dr. Lapeyre, in the *Journal de Médecine*, August 17, 1890, relates an astonishing case of a man who, startled by a slap on the back, inspired into his trachea a lighted cigarette, did not know what had become

of it, kept it in his lungs four months and then coughed it up in the presence of two friends. Dr. Lapeyre is not said to be connected with the marine service of his country.

Chilblains and Chapped Hands.

Baelz, of Tokio, recommends the following most strongly:

℞ Potassæ causticæ, ... one part
Glycerini
Alcohol, of each, ... forty parts
Aq. destill. . . . . 120 "

The hands are to be first bathed in warm water, and the mixture rubbed in subsequently. A single daily application produces a cure in course of two or three days.

Philadelphia Polyclinic.

The Ladies' Aid Society of the Polyclinic Hospital has decided to raise $5,000 to perpetually endow a free bed for cripples in the hospital, for which that society has already done a great deal. Instead of deferring the usefulness of the fund until the entire amount has been raised, the progressive endowment plan has been adopted, whereby the bed is put into use for one month in each year in perpetuity as soon as each $500 is subscribed.

A large number of persons who are afflicted with deformities themselves and desire to provide those opportunities for early treatment which the poor cannot otherwise obtain, are taking an active interest in the project.

NEWS.

—It is reported that the grippe is coming again.

—Dr. Oliver Wendell Holmes celebrated his eighty-first birthday at his Beverly Farms home, August 29.

—An accidental death from aconite poisoning occurred in New York, September 1. The victim was 67 years old.

—After an absence from town of ten months, Dr. John K. Mitchell has returned to office at 211 South 17th Street, Philadelphia.

—Dr. C. H. Neall, a Philadelphia dentist, who has had several articles in the REPORTER, was seriously injured August 30 at Holidaysburg, Pa.

—Mrs. Susan L. Barr, wife of Dr. D. M. Barr, proprietor of the Hygeia Hotel, in Ocean Grove, N. J., died August 31 from lock-jaw. Two weeks before she was badly burned. She was fifty-seven years old.

—Dr. Samuel G. Dixon, recently Professor of Hygiene in the University of Pennsylvania, has resigned, in order to take the position of Professor of Bacteriology in the American Academy of Natural Sciences.

—Dr. Herman Rooker, living at 222 South 16th Street, Philadelphia, died suddenly at the Pennsylvania Hospital, September 3. It is believed that he died of opium poisoning and that he was an opium *habitué*.

—The State Veterinary Surgeon of Pennsylvania has issued to the farmers of the State a warning in regard to the causes and symptoms of anthrax and the way in which the bodies of animals dying with it should be disposed of.

—The Philadelphia Board of Health continues to prosecute dishonest milk dealers. On September 3 it ordered suit to be brought against twenty dealers for selling watered, skimmed and colored milk after being warned not to do so.

—The influenza has reappeared in an alarming form at the village of New Mecklenburg, Germany, where hundreds were stricken down last year, and many of those who suffered then have been attacked now with still greater severity.

—The outbreak of zymotic disease among the men in the Glogan garrison in Germany has been pronounced by the authorities, who have investigated the matter, to be due to the over-exertion of the soldiers on too short an allowance of food.

—Dr. R. S. Means, one of the physicians to the Government Hospital for the Insane at Washington, D. C., died August 1, 1890, after an illness of eighteen days. He was a young man of marked ability, and gave promise of a brilliant future.

—A fatal mistake was made on September 2 in Bellevue Hospital by a transient nurse, and it resulted in the death of a convalescent patient. The nurse gave the poor man a dose of pure carbolic acid under the impression that it was the medicine prescribed by the doctor.

—Dr. Denman B. Ingersoll, who was graduated at the University of Pennsylvania in 1865, died August 30, at May's Landing, N. J., of cancer, after four months' illness.

He was well known throughout the State, and was a member of the County Board of Pension Examiners.

—The State Medical Board of New Jersey met at Trenton, September 2, and organized by selecting Dr. W. L. Newell, of Millville, President; Dr. A. H. Worthington, of Trenton, Secretary; and Dr. W. P. Watson, of Jersey City, Treasurer. The Board will meet again before making examinations.

—Dr. R. S. Wharton, who is, or was, an assistant to Dr. William Pancoast, has been reported in the newspapers as intending to bring suit for payment of a claim for medical services rendered to the Red Cross Society at the time of the Johnstown flood, in 1889. The justice of his claim is denied by the Society.

—A young woman, 17 years old, living in Moncton, N. J., went to sleep August 25, and had not yet awakened on September 1. She had a mania for eating paper bags, and it is supposed this mania had something to do with her illness. About a year ago she slept for five days, but was awakened while being bled by her medical attendant.

—On September 1 a law went into effect in New York that "no child actually or apparently under 16 years of age shall smoke or in any way use any cigar, cigarette or tobacco in any form whatsoever in any public street, place or resort. A violation of this subdivision shall be a misdemeanor and shall be punished by a fine not exceeding $10 and not less than $2 for each offence."

—A woman in St. Louis has recently been creating great excitement by pretensions to a power to heal diseases, which were blasphemous in form and probably insane in motive. On September 2 two physicians filed a complaint in the Probate Court in St. Louis for an inquiry as to the sanity of the woman, whose name is Maria B. Woodworth. Five days were given her in which to prepare for the trial.

—At a meeting of the Trustees of the Cooper Hospital, Camden, September 3, Thomas Warring was elected Superintendent and his wife was selected as Matron, succeeding Mrs. E. Wilson, who resigned several weeks ago. Miss Burke was also appointed head nurse. The new Superintendent was formerly a teacher at the Westtown Friends' School and Miss Burke was formerly connected with a Massachusetts hospital.

—Dr. Nathan F. Mossell, a colored physician and a graduate of the University of Pennsylvania in 1882, was on September 3 arraigned on a charge of criminal malpractice preferred by a young woman, now a patient in the Philadelphia Hospital. Dr. Mossell asserts that he had treated the young woman for a tumor of the uterus and that his error in diagnosis had been confirmed by the resident and visiting obstetricians at the Philadelphia Hospital.

—The Mississippi Valley Medical Association will hold its sixteenth annual session at Louisville, Ky., October 8–10, 1890. A large and interesting meeting is expected. The President is Dr. Joseph M. Mathews, Louisville, the Secretary, Dr. E. S. McKee, Cincinnati, the Chairman of the Committee of Arrangements, Dr. I. N. Bloom, Louisville. These gentlemen will be pleased to give information to those desiring it. The American Rhinological Association will meet the same week at the same place, so as to make it possible to attend two Associations at the same time.

—The physicians at work in cholera-infected districts of Spain continue to receive ill usage from the peasants, who are opposed to the precautionary regulations which the physicians insist shall be carried out. A short time ago every doctor was furnished with a military escort, but despite this reports of violence done to them are daily received at the Government offices. In Valencia a physician has been killed by a stiletto stab in the back. At Mogente another doctor had his head split in two by a hatchet wielded by a woman; while in another district near Lerdo a third was set upon and killed by an infuriated mob.

—At the Pharmaceutical Conference at Leeds, September 3, it was stated that patent medicines have paid to the British Government in 1890 the enormous sum of £220,000 ($1,110,000) in the shape of duties, and it was estimated that before the end of the year a million and a half sterling will have been expended by the owners of these nostrums. In view of the facts, and that, while many of the compounds so protected are comparatively harmless, others are positively dangerous, the President declared that the time had come for the Government to adopt the Continental method and say to the makers that if they wish to reach the public they must consent to reveal the ingredients of their mixtures.

MEDICAL AND SURGICAL REPORTER

No. 1751. PHILADELPHIA, SEPTEMBER 20, 1890. VOL. LXIII.—No. 12.

CLINICAL LECTURE.

RESULT OF AN OPERATION FOR REMOVAL OF THE UTERINE APPENDAGES.—OPERATION FOR LACERATION OF THE PERINEUM.—PROLAPSUS UTERI.[1]

BY E. E. MONTGOMERY, M. D.,

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Removal of Uterine Appendages.

Gentlemen: The patient I bring before you is one upon whom an abdominal operation was performed three weeks ago for the removal of the appendages of the uterus. I bring her before you to-day to show you the result. By reference to this temperature chart, you will see that for several days after the operation the temperature reached was 100.2°. After the removal of the sutures on the seventh day it reached 100.4°; on the eleventh day it suddenly rose to 102°, afterwards rapidly came down to normal, and remained there. The removal of the sutures is often followed by rise of temperature, due to nervous irritation, or, in some cases, to the infection of the suture track in its removal. The incision healed by the first intention. The patient feels entirely well. I am particularly pleased with the result, as I was reproaching myself after the operation that I had not introduced a drainage-tube, on account of the pus-tube that was found. To obtain healing of the wound by first intention and to secure a strong cicatrix are desirable in all cases; and in order to obtain these results, the following precautions should be observed. First, use every care in regard to cleanliness or asepsis. The antiseptics are not so acceptable in abdominal operations. Second, the aponeurosis of the rectus muscle is brought in contact with the corresponding tissue of the opposite side. Care should be exercised that the edges of the peritoneum and skin are brought in position without being everted, or inverted into the wound. Want of care in this particular will result in a weak abdominal cicatrix, which is conducive to the subsequent development of hernia. It has been claimed that hernia is more likely to occur in short abdominal wounds. This is not necessarily true, but is due to the fact that less care is oftentimes observed in closing short wounds than in longer incisions. In some cases it is better that the sutures should be introduced so that their line forms a triangle in either wall, the apex of which is in the muscular tissue. In this way the thickest portion of the newly-united tissue is its central portion, and the edges of the wound, instead of being inverted, stand up in the form of a ridge. It has also been recommended to stitch the omentum to the lower part of the abdominal wound, in order that by its presence covering the intestines, the tendency to hernia is decreased. Third, do not let the patient get up too early, while the cicatrix is still weak. The increased intra-abdominal pressure in an upright position is likely to cause stretching of the newly-united and still weak tissue, increasing the danger of hernia. The patient should not be permitted to move from her bed, or to assume a sitting position, under two weeks, or to be continuously up, under three weeks; and should wear a bandage about the abdomen for six months, during which time all violent straining and lifting should be avoided.

Operation for Laceration of the Perineum.

The next patient I bring before you is a woman forty-five years old. She has had

[1] Delivered at the Philadelphia Hospital.

eight children, all of whom died in infancy. Three months ago she had an intestinal hemorrhage, since which she has not been able to control the evacuation of the bowels. Twelve years ago she sustained a tear of the perineum, upon which a primary operation was done, which did not, however, prove entirely successful. A second operation was done in this hospital, a few months ago, by my predecessor; this operation also failed, due to the fact that she had an evacuation of hard fecal matter within a few days after the operation, by which the sutures were torn loose, leaving the tissues in a worse condition than they were before the operation. It is my purpose to attempt an operation for the restoration of the perineum, and particularly to secure the function of the rectal sphincter. As a preparation for this we have administered laxatives to the patient every alternate day for the last week, and gave her a large enema this morning. By these means the intestinal track is unloaded of all hard scybalous masses. For the last two days the patient has had a diet of animal broths. Having placed the patient under the influence of an anæsthetic, she is brought down upon the table in a recumbent position, the limbs well drawn up and held by a leg-holder or crutch. Where an instrument of this kind is not at hand, a cane or umbrella with ordinary bandage will serve the same purpose. This step enables one to do with less assistance. You see the sphincter ani is much relaxed, showing that in the previous operations, the ends of the two muscles have not been brought in contact. The object of this operation will be to so complete the denudation as to expose the ends of the retracted muscles, and bring them in position. To do this, I make an incision through the perineum at the junction of the integument with the mucous membrane, and carry this incision around the vulva to about the junction of the labia minora with the labia majora. A second incision upon each side is carried from the central portion of this curve downward around the anus, to about one-half its extent. Having dissected up the flap freely, the edges are sutured, four silk-worm gut sutures are buried throughout their entire length. The serrated edges on one side, with the depressions on the other side, fit into each other, making an irregular line. The sutures are held by compressed shot.

After-treatment. The limbs of the patient will be kept tied together. She will be kept upon an animal-broth diet; no milk must be given, for the reason that its casein forms hard, dense masses in the intestines, whose passage would imperil our newly-united surfaces. The patient will be given a laxative to produce a couple of watery evacuations on the third day, and this will be repeated on the seventh, before the removal of the sutures. For the whole of this time the patient will be nourished by an animal-broth diet. This plan of treatment is better than blocking up the intestines with opium for ten or twelve days, as was formerly the method; at the end of which time the rectum was crowded with hard, dense fecal matter, which required to be broken up before it could be evacuated, and even then imperilled the union which had been accomplished. The operation we have done is one which serves an excellent purpose for the form of laceration here present. It is a mistake, however, to believe that any form of plastic operation is applicable to every laceration, as in some the laceration may be as extensive as in this without involvement of the sphincter, the tearing having occurred to one side of the rectum.

Prolapsus Uteri.

The patient I now bring before you is a woman seventeen years of age, who is suffering from complete prolapsus of the uterus. She began the life of a prostitute at twelve, which naturally explains her present condition. She underwent an operation for the relief of this condition some three months ago, but as I expose the genitalia, you will notice that the whole uterus and vagina is prolapsed, and the tissues from exposure are thickened, dry, and the mucous membrane presenting an appearance similar to that of the skin.

I propose to make her the basis of a few remarks on the subject of prolapsus of the uterus. This disease is a form of hernia; and any condition which tends to weaken muscular development, such as general ill-health, arrested development, or local conditions, such as those which increase the weight of the uterus or lessen its support, or increase the intra-abdominal pressure, will render the presence of this condition probable. Under conditions affecting muscular development, may be mentioned such forms of disease as phthisis, scrofula, and the premature exercise of the genital functions. It is not surprising that in a patient who began to live the life of a prostitute at the tender

age which this girl did, and who has been subject to want of care, should have suffered from such a condition as is here presented. The weight of the uterus may be increased by any condition which causes an abnormally large flow of blood to the organ, such as the presence of growths within its walls, sub-involution or laceration of the cervix. Now, if we have these conditions present, with those that have been mentioned affecting the general ill-health, we can readily understand how quickly such a condition may be developed. This development may result from a weakened support where laceration of the perineum or vagina has occurred. Again, the pressure of growths in the vicinity of the uterus, such as ovarian and tubal tumors, may from their weight cause the extrusion of the uterus.

Before discussing this subject further, it may be well to say something of the forces which normally retain the organ in its proper position. Upon this subject there has been great diversity of opinion; some holding that the uterus rests upon the vagina like a cork in a bottle, and so long as the vagina retains its proper muscular power, the uterus will be held in its normal condition. Others again ascribe the entire support to the uterine ligaments, and Savage directs attention to the fact that the utero-sacral ligaments are the principal support. These ligaments cut, the uterus is permitted to be depressed to the vulva. Again, the peritoneum is credited with being the main support, while some build all their hopes upon the perineum. The truth is, that the support is not dependent upon any one of these functions alone, but upon a healthy condition of all. In the normal position the vagina is closed, the anterior and posterior surfaces lying in contact. While the individual is erect, the vagina is at an angle of sixty degrees to the horizon. The uterus is situated at something more than a right angle to this canal; so that any pressure upon the uterus from above is directed against its posterior surface, which is reflected against the posterior surface of the vagina, and it again by the anterior, so that the force is directed obliquely. If, however, the organ becomes displaced backward, and its axis is parallel or nearly parallel to that of the vagina, the force is now directly towards the line of exit, and consequently the rapidity of the downward displacement is increased. As the organ is displaced downward, its circulation is interfered with, so that in this way it has increased weight to facilitate its development. This displacement of the uterus is manifested by more or less burning and discomfort in the pelvis, and interferes with the function of the bowels and bladder, with marked nervous manifestations. There are three degrees of uterine prolapsus, which are as follows: First, the organ is in the line of the axis of the vagina and rests upon the vulva. Second, a portion protrudes from the vaginal canal; and in the third degree the whole organ protrudes, and constitutes a condition which is known as procidentia uteri.

The treatment of prolapsus will be discussed under two heads. First, mechanical, and second, surgical. The early authorities regarded the different parts of the body as independent entities, and when the displacement of this organ took place, we find them subjecting it to contact with disagreeable bodies, such as lizards, snakes, with a view of frightening it back into its proper position. Soranus lectures severely some of his contemporaries, for having attempted to treat this condition by suspending the patient head downwards for twenty-four hours. Dr. Emmet relates that a physician from the South attending his clinic, claimed to cure such cases among the colored people by suspending them in a sling with the pelvis elevated, and keeping the vagina filled with a decoction of white oak bark, and that three weeks of such treatment was sufficient to effect a cure. Various applications such as tampons and pessaries, both internal and external, have been and are now used for the treatment of this disease. The variety of pessaries is only limited by the ideas of their inventors, as each gynecologist imagines it is his duty to invent one. Gardner, in a paper upon the subject some years ago, mentions 150 varieties. These pessaries are of two classes, those which are held within the vagina, and those dependent upon an external support. In these cases of complete prolapsus, the pessary can only act by so distending the vagina that the instrument rests upon the pelvic bones, consequently it must give rise to considerable pressure, which will necessitate its frequent inspection. The pessary is a foreign body, and by its presence increases the amount of secretion. The salts from this secretion frequently coat over the pessary, roughening its surfaces, and giving rise to irritation and ulceration of the vagina. A case came under my notice a few years ago, in which a pessary had been worn

for twenty-five years without removal. The irritation was so great as to lead to the belief that a malignant disease was present. The instrument for two-thirds of its extent was imbedded beneath cicatricial tissues of half an inch in thickness. Instead of cutting out the pessary I resorted to a pair of bone pliers, by which the protruding portion of the instrument was cut off, and the remaining half withdrawn from the track. The removal of the instrument resulted in a complete relief of the distressing symptoms. Pessaries are sometimes made of soft rubber, but these absorb the secretions, decompose, and give rise to an exceedingly offensive odor. A spherical or globular pessary was formerly made of silver, or when more esthetic, plated with gold. These were frequently worn for a long time, Similar pessaries have been made of glass. I remember removing one in this hospital, which had been worn for fifteen years. By its irritation and the consequent inflammation, its removal was attended with considerable difficulty. It was only accomplished by passing alternately the blades of fenestrated forceps about the instrument, and then with considerable difficulty withdrawing it. Another case in which an attempt was made for the removal of such a pessary in this house resulted in its fracture, and the fragments cut through into the bladder, giving rise to a vesico-vaginal fistula, which was especially hard to cure, as the lower part of the vagina had become greatly contracted. These instances are mentioned to impress upon you the importance of subjecting these instruments, when worn, to frequent inspection.

Another class of instruments are those in which the support is dependent upon a band about the abdomen. The instrument is exceedingly unpleasant as it gives rise to excoriation of the external parts.

We come now to the consideration of the second plan of treatment, that is, surgical. This, in all cases, is dependent upon the narrowing of the vaginal canal and vulvar orifice, in such a way as to support the structures above. Upon an examination in some cases, we find that the neck of the uterus has undergone an elongation, which is known as supra-vaginal hypertrophy or the elongation of the cervix. In these cases a portion of the cervix should be removed as a preliminary part of the operative procedure.

When we come to understand the literature of plastic operations upon the vagina, we find a great diversity of procedure. Thus Dieffenbach recommended removing portions of the vagina by grasping it in forceps, which were permitted to remain until the tissues within their grasp sloughed off. The cicatrix resulting led to a narrowing of the vagina. Constriction of the vagina was caused in another case by passing a ligament about the canal at its upper third, tying it tightly, and permitting it to slough out. Later we find the vulva being closed by alternate gold and silver rings. Fricke recommended a denudation of the posterior part of the vulvar orifice, an operation which was severely criticised by Dewees. The objection to this operation, however, is that it does not support the uterus in the upper part of the vagina, and the heavy organ settling down on the newly-repaired tissue, soon results in its absorption. In the endeavor to still further constrict the vagina, we have the operations of Simms, Emmet and others, upon the anterior wall, and these reenforced by plastic operations upon the posterior wall. Those of Bischoff, Martin and Hegar, endeavoring to affect the upper portion of the vagina and make the support through its whole length. An operation which seemed to afford a favorable result in many cases was that of Le Fort, which consists in removing a section of tissue about four-fifths of an inch from the whole length of the anterior wall, and a similar one from the posterior wall. These were brought together by sutures in such a way that the denuded surfaces lay in contact. The resulting union formed a septum dividing the vagina into two canals. This operation, reenforced by the modification of Tracey upon the vulvar outlet, has proven very serviceable in a case upon which I operated some years ago in this institution. It is an operation, however, which is only applicable after the menopause, as such a septum would greatly complicate a subsequent parturition. An operation has been devised by Alexander for shortening the round ligaments. By this operation the uterus is placed in a position of ante-version, and the force is no longer directed upon its anterior surface. To be effective, however, it would have to be supplemented by a plastic operation upon the vagina and vulva. The abdomen has been opened, the uterus drawn upward and fastened to the anterior abdominal walls by suturing the round ligaments or the uterus itself. In the patient you have brought before you this morning, it was a question

whether any of these operations would be permanently successful. In such cases Apostoli warmly advocates the use of electricity, urging that the uterus is sustained in its proper position by the action of muscular fibre; that any displaced position is due to a loss of muscular tone. Smith, one of his disciples, claims to have cured a number of cases of this character by repeated application of the Faradic current. It would seem to us, however, that in a case in which there was so much displacement as in this, the muscular fibre had become so completely atrophied that its restoration would be impossible. But as the case presents so little hope for successful treatment by plastic operation, we will subject her to the use of electricity.

COMMUNICATIONS.

TREATMENT OF RHEUMATISM.[1]

BY C. S. COPE, M. D.,
IONIA, MICH.

Rheumatism comes under the notice of every physician in temperate climates, either in his own person or that of his patient, frequently of both, so that nearly every day of a busy practical life brings us into direct contact with this disease.

In former years a severe attack of rheumatism was, to the patient, another name for six weeks in bed with the most excruciating torture. Happily that saying belongs to the past. No patient need be confined now so long with this malady, if properly treated. The introduction of the salicylates was a master-stroke in therapeutics. Many persons under their judicious use make a rapid recovery. But there are many who cannot take the salicylates, and for such some other way or means must be devised. It is to the action of some of the older remedies that I desire to direct your attention. Not that they are to supplant the newer methods, but alone or in combination with new remedies they will be found of great use both to the physician and patient.

In examining a person sick, no matter with what disease, certain symptoms characterize certain pathological conditions, and in a mute but convincing language speak to us of certain remedies needed to counteract the pain and suffering their writhings extort. The pinched face and shrunken form speak to us of starvation, and the need of nutritious food in forcible language.

We find the patient with rheumatism emits a peculiar sour odor; that the tongue in most cases has a coating of white or yellow fur; that the urine is highly colored and of a rank smell. The other symptoms of pain and swelling are a necessary concomitant. To this picture there is a companion one. The tongue is red, and the sour odor is not present. The urine in cases where the sour odor and coated tongue are present will be found to contain an excess of acid. When the red tongue is seen there is a deficiency of acid. Persons with the latter are of the gouty type of diathesis. The treatment for these two types of disease has been, for the first, to use alkalies; for the second, when the red tongue was present, to use the wine of colchicum seed.

Case 1. L. M., a lumberman, had several crews of men to supervise. There were four mills under his care, and these were situated within a radius of three miles, necessitating much travel, mostly on foot through deep snow and stormy weather, during the winters of 1879, 1880 and 1881. He was taken down with acute inflammatory rheumatism and suffered greatly. Before my seeing him he had had many serious attacks of like character, which he assured me kept him in bed from six weeks to two and three months. One winter he was confined to the house all the time. I found a heavily coated tongue; urine of strong odor and acid; the perspiration very sour-smelling. He was at once given ten grains of calomel with fifteen grains of Turkey rhubarb. In two hours he began taking tablespoonful doses of a strong solution of hyposulphite of soda, twenty-five grains at a dose. I saw the patient first in the evening. Before morning the bowels moved freely, the urine was clearer, and by the middle of the forenoon he was sitting up, and in the evening was able to be out on the street. Quinine was given in three-grain doses for three days, at meal times. Other medicine was discontinued after the first day. The hyposulphite of soda had been taken in a tablespoonful of water every two hours from the time of its first administration. There was no return of the trouble for a number

[1] Read before the Michigan State Medical Society, June, 1890.

of weeks, when unusual exposure induced another attack. A like treatment produced equally good results.

The patient often expressed his satisfaction at being able to get rid of the rheumatism so quickly, and said that his seizures were equal in severity to any that he had previously experienced. I continued as his family physician up to 1883, at which time he removed to a distant State, and soon after died of pneumonia. During the time he was under my care his seizures of rheumatism grew less frequent, although he was exposed to the greatest vicissitudes of stormy weather in the Michigan pineries. Each time he came under treatment he responded promptly to medicines taken.

During these years all my other patients treated for rheumatism received like treatment. Part of this time was very productive of rheumatic disorders. Choppers, loggers and teamsters were great sufferers from the trouble; but all made good and rapid recoveries under the treatment. Occasionally a case would be met when a different class of symptoms presented, when a resort to wine of colchicum associated with other remedies usually met the existing conditions. Of the wine of colchicum the usual dose was ten drops, repeated every half-hour until a cathartic effect was produced, when the symptoms abated.

The use of colchicum required a more prolonged administration, as the cases with the red tongue were more intractable. I have rarely found a red tongue in a case of acute rheumatism. There is one great objection to the hyposulphite of soda, and that is its taste; and nothing that I have been able to devise can take away this disagreeable feature. This fact led to the substitution in many cases of acetate of potash, the old *sal diureticus* of the Fathers. This is not palatable by any means, but the essence of gaultheria mitigates its unpleasantness materially. With a saturated solution of the acetate of potash, in tablespoonful doses, half an hour after each meal, the tendency to rheumatism may be averted and an attack completely forestalled. This remedy should be continued as long as there are any symptoms of the disease present, and resorted to on its first recurrence. With this alone those troublesome attacks of lumbago found in laboring men may be very successfully treated.

Of those cases of rheumatism in which there is glandular swelling as well as the proper rheumatic phenomena, the following prescription will be found useful:

℞ Syr. stillingiæ comp. . . . . ℥ iii
Ext. phytolaccæ decand. fld. . . . ℥ iii
M. S. *One teaspoonful every four hours.*

Case 2. In the fall of 1881, Mr. C. came to me for treatment. He lived on an adjoining street. I had noticed him all the previous summer as he hobbled about, truly a subject for public commiseration. He was a large man of phlegmatic temperament, flabby and loose jointed. He was much crippled with rheumatism, and had been so for years and was given up by friends and relatives as a hopeless invalid. About the neck and jaws there were large glandular swellings of a scrofulous nature. His feet and legs were swollen, his abdomen much puffed up, his heart irregular and a general dropsical condition was present. With crutch and cane it was a hard trial for him to venture on fine days for a walk of fifteen rods. When he did so he was obliged to sit down and rest a long while before making the return trip. This was his condition when he called on me. I was a new physician in the place and folks did not have much faith in me. I gave him fifteen grains of calomel with a like amount of rhubarb at one dose, followed next morning with a Sedlitz powder every three hours until the bowels were well cleaned out. After thorough catharsis I began with twenty-five grain doses of hyposulphite of soda in water well diluted, every two hours for the first twelve hours. After that, this dose was taken three times daily for four weeks. After the first day I gave, in alternation with this, teaspoonful doses of the stillingia and poke-root mixture. In less than a week there was marked improvement and he made a prompt recovery. In less than three months I had the satisfaction of seeing him able to go to work, and before half a year he could carry a twenty-foot ladder and climb lightly to the top of a building and stand all day at work. He was by trade a house painter. The dropsical tendencies subsided and the glandular swellings were all removed. During the next four years the only medicines needed were the acetate of potash and stillingia, with calomel, where sudden weather changes or exposure caused a lameness. With these prescriptions he is able to live in comparative comfort and to successfully abort all attacks of the dreaded disease.

Case 3. The next year another aggravated

case came under treatment. J. C., a young man twenty-one years old, applied for treatment. He had been in town at a boarding-house for several months, and on pleasant days, in company with other chronics, came out for a sun bath. I often saw him and wondered why he could not get relief, knowing that he was constantly under treatment. He had that peculiar blanched look that patients have who suffer long from severe rheumatism—a sort of pickeled appearance, as though they had been but recently taken out of white brine. His odor was diagnostic, sour and strong; his tongue was broad, pallid and coated with fur. One heel was retracted and drawn up as in club foot, the toe alone resting on the ground as he stood or hobbled along. He said that since he was thirteen years old he had suffered with intense pain in that heel, and at times the pain was almost unendurable when his attacks grew worse. He had had the usual treatment, with hypodermic medication to assuage excessive paroxysms, but he got no better. He had lost faith in doctors and in medicine. I gave him fifteen grains each of calomel and rhubarb, followed in the morning with Sedlitz powders, then hypophosphite of soda and stillingia and poke root. He got well and in two months went to work canvassing, as a book agent, and as such has traveled on foot over the northern part of Montcalm County, on roads none too smooth or level. All the pay I ever got was a copy of Gaskell's *Compendium of Forms*, for which he was agent. It stands in my library to-day, a monument to the successful treatment of an aggravated case of rheumatism. He has often spoken of his recovery, and at the end of three years there had been no return of the trouble.

Many other cases might be cited, but these will sufficiently illustrate the treatment.

In cases of gouty diathesis, with red tongue and much pain in the smaller joints, especially in the feet, the wine of colchium will often give the patient surcease from suffering. All the cases that I now recall in which the red tongue was present, were in women. Not all women, however, who have rheumatism, present this peculiarity. Since the introduction of salicylates, I have used them with excellent results in ordinary cases. They are easily given either in capsule or solution. But many stomachs will not tolerate them, and some people are much disturbed by their action. To avoid the burning in the stomach due to the salicylate of soda, small doses of bismuth or large quantities of milk will usually afford relief.

As a palliative remedy for local application the following will be found to be prompt, thorough, efficacious, going at once to work and not standing on ceremony as some liniments are known to do:

℞ Menthol crystals . . . . . ʒss
Whiskey . . . . . f℥iii
Chloroform . . . . . f℥ii
M. Ft. sol.

Wet a blotting-pad or a piece of heavy flannel with this medicine, apply to the painful part and cover well with flannel. This gives almost instant relief from pain.

633 West Main Street.

CONSUMPTION AND SANITATION AMONG THE DAKOTAH INDIANS.[1]

BY FRED TREON, M. D.,
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The death-rate from consumption among the Indians is alarmingly on the increase. I do not intend, in this article, to look beyond their sanitary condition for a cause for this grave malady and other kindred diseases. We must, in treating of so serious a subject, do away with all poetical ideas, and view the Indian as he really is and not as we would wish to have ourselves believe him. If an evil exists, the sooner it is discovered the sooner will the remedy be applied, if remedy is possible. If experience teaches us anything, the Indian is not alone to blame for his existing bad sanitary condition. In a way his education in these matters has been neglected, the example of white men, commonly known as "squaw-men," who have lived among these people, has had anything but an elevating influence upon them. We must remember, also, that these people are now in a transitional state, passing from a nomadic to a settled life. The change is a radical one and the Indian progresses slowly. Just now we find them in a condition that cannot be called settled, neither is it an uncivilized state in the strict sense of the term. Perhaps, from a health

[1] Read before the Dakota Medical Society, June 14, 1890.

standpoint, the worst thing they have to contend with is the modern Indian cabin; usually a log house with but a single room that has one door, and at most two small windows that admit but little light. The house is small and so constructed as to allow no air to enter the room; in many instances there is no floor, and the roof is made of poles covered with earth. My friend, Dr. J. B. Graham, says, in his article on Scrofula among the Sioux Indians: "These houses are kept in winter at a temperature of from eighty to ninety degrees Fahrenheit, and inside are practically dry at all times. Exhalations from persons and dogs, with sputa from consumption and pus from scrofulous sores, are allowed to lodge on the walls and dirt floors; they are rapidly dried by the high temperature and suspended in the atmosphere of the room. Thus it may be seen that these houses are the very greatest source of danger, veritable culture-soils and hot-beds, they furnish the best possible condition for the spread of tuberculosis when the bacilli lodge in the soil prepared for them by exposure, under-feeding and malnutrition."

I have gone to these huts in the early morning and when the door was first opened to admit me have often been compelled to retreat to the open air to avoid being made ill by the stench and foul air that greeted my nostrils. It is not an uncommon thing to find six or eight persons, and as many mangy dogs, occupying one of these small, air-tight rooms. These people, as a rule, cook, eat and sleep in the same room. They rarely remove their clothing when they retire and seldom wash when they rise. Vessels used in cooking are to be found in a greasy and unwashed condition. The dishes are filthy and the cupboards untidy, and in the summer they swarm with flies. Their bed clothing and wearing apparel never receive an application of soap and water, and as a rule are filthy with vermin. They eat the coarsest and most unappetizing food and drink stagnant water. Their meals are not served at any stated time, and when they eat they are like a prize fighter, they go at it and stay at it until they make a finish. The rations issued weekly are small and are disposed of inside of twenty-four hours.

These things will not please a great many who style themselves friends of the Indians, and there are others who will doubtless say that while what I have said is true, yet it would be as well to leave it unsaid. I intimated in the beginning of this article that I would deal with plain facts; I do so, hoping a remedy may be found and applied. I do not hesitate to say that the cause of Indian work has often been retarded and hindered by false and rose-colored statements that covered up many evils which I am endeavoring to expose in order that they may be seen and corrected.

Dr. Culbertson, of Cincinnati, said recently: "Men, women and children that breathe dirt, eat dirt, sleep in the dirt, and work in the dirt, will have dirty morals and dirty characters." This brings me to concur in a statement I heard a gentleman make, who has spent many years in the Indian work, that the Indians were low down in the scale, physically, mentally, socially and morally. And one very good reason for this deplorable state of affairs is their filthy habits of life.

The cattle furnished at our Agency last year, under contract, were the worst I ever saw; poor, small, domestic cattle, many of them were old milch cows unfit for beef. As a result many of them died, and the rest were so poor that in some instances they could not be brought to the slaughter, and once the Indians were allowed to go to the Big Bend, where the cattle are held, and killed forty head that it was thought would die. Of course they consumed the flesh of these poor animals. I was called to examine some of the meat from cattle slaughtered out of the Government herd at the Catholic mission school. The muscles were in a slimy condition, while the remains of fat looked like so much pus. I advised them not to use it. I have actually seen Indians eating things too disgusting to describe even in an article of this kind. Tainted meats are taken with an apparent relish, and warm meats, tallow, liver and the entrails are swallowed at the slaughter with great greed. They eat everything from a domestic dog to a skunk.

The vitiated air of the rooms they occupy at night is difficult to comprehend. The inmates of these overcrowded enemies to health come out in the morning with a tired, lazy look, appearing as if they had been robbed of the last grain of energy they ever possessed, and it is not until they have moved about in the open air for a time that they evince much evidence of life.

I cannot admit that this is the origin of consumption and scrofula among the Indians, but I do certainly believe it now to

be the existing cause. Flint says: "The disease prevails much more among those whose pursuits are sedentary than among those whose occupations involve outdoor life. Want of exercise, defective ventilation, deficiency of light and the depressing emotions undoubtedly contribute to the production of the tuberculous cachexia. The influence of the several causes just mentioned is seen in the greater liability of domesticated animals to tuberculous disease than of the same animals in a wild state. The stabled cow, the penned sheep, the tamed rabbit, the monkey, the caged lion, tiger or elephant, are almost invariably cut off by tuberculous affection." He also says: "There is reason to believe that habits of diet unduly restricted as regards variety and quantity, either from choice or necessity, may contribute to the development of the disease." Dr. Mays, in his article entitled: "Does Pulmonary Consumption Tend to Exterminate the American Indians?" says: "Probably one of the chief causes of this disintegration among the Indians when first coming in contact with civilization consists in an entire reversal of their previous habits and customs. The life of physical open-air activity, which invigorates the Indian's respiratory organs as well as his whole body, is now exchanged for a reservation life, where his nomadic instincts are curbed and his wants are fully satisfied, and in consequence he sinks into a state of lethargy and idleness from which he soon merges into pulmonary disease. After having endured the first shock of the conflict, a reaction begins to show itself. He gradually becomes accustomed to his new relation, assumes an industrial and peaceful life, and so elevates himself out of his physical and moral degradation."

Has not the learned professor based his opinion without actual experience on an Indian reservation? In the last part of the quotation he intimates that Indian consumption is entirely due to the change these people have been forced to make in their habits and avocations of life, and that it would be easy for him to elevate himself out of his "physical and moral degradation" after once having sunk into them. The first is a plausible theory, but the second statement does not by any means coincide with my experience. For the past nine years the majority of these people have been living in houses. For the past four years I have lived among them in the office of Agency physician. There are now about 1,090 Indians on this reservation. From June 1, 1886, to June 1, 1887, there were, in all, 39 deaths: 1 accidental, 22 from consumption. From June 1, 1887, to June 1, 1888, there were, from all causes, 52 deaths: 3 accidental, 31 from consumption. From June 1, 1888, to June 1, 1889, there were, in all, 45 deaths: 3 accidental, 23 from consumption. From June 1, 1889, to June 1, 1890, there were, from all causes, 58 deaths: 1 accidental, 2 suicidal, 24 from consumption. The increase in death-rate during the last two years was due to epidemics of measles, influenza and whooping-cough.

The death-rate from consumption here is in accordance with statistics from other tribes and with those furnished to Dr. Washington Mathews by Dr. Jonathan Keeland, of the Onondaga Indians. These people live within seven or eight miles of Syracuse, New York, and have been under a civilizing influence for at least a century, and yet from Dr. Keeland's report we see that the death-rate from consumption from 1859 to 1877 was on the increase. If Dr. May's theory is a correct one, then it ought to be demonstrated in the lives of these remaining people of the old Iroquois nation. And yet Dr. Mathews tells us that sixty-two and a half per cent. of all deaths occurring among them during the census year were from consumption.

It will be seen from my table given above that from June 1, 1886, to June 1, 1887, the mortality from consumption was 58⅓ per cent. of all deaths. For the succeeding year it was 63⅓ per cent., a heavier per cent. than that mentioned by Dr. Mathews of the New York Indians during census year. The following year it was only 54⅓ per cent., the increase being due to the epidemic of measles, from which the mortality was heavy. The last year the percentage was only 43⅔ per cent.; the decrease being due to the severe epidemics of influenza and whooping-cough. The mortality from consumption for the past four years reaches the enormous per cent. of 54⅓ of all the deaths occurring in that time, excepting violent and suicidal deaths; and that period includes three of the severest epidemics known among these people for years.

If we are to believe that consumption is transmitted from parent to offspring, is it not reasonable to suppose that the mortality from consumption will continue to increase from year to year at least until a decided

improvement in sanitation is made? Indeed if something is not done to stay the ravages of this disease it must eventually exterminate the race. The birth-rate has not kept pace with the death-rate; for in the period in which 192 deaths are reported there have been only 171 births, showing a falling off of 21 in four years.

There is still another thing that I wish to bring to notice in this connection, and that is the Indians' method of disposing of their dead. If there has ever been a worse disposition of the dead than that of earth burial it was certainly that of placing the dead on scaffolds or in the trees, where they were left to decompose, and where, after the rough burial cases had decayed, the particles of decomposition and living germs were wafted wheresoever the breeze carried them. Even now the habit is not entirely done away with, and as bad or a worse disposition is made of the dead. The remains are placed in boxes, and left on hill-tops or buried on the surface, often in close proximity to some Indian dwelling. In one instance that I know of, last winter, the remains were kept in the attic of the house until decomposition had taken place and the fluids of the same ran down into the room of the living inmates. In a climate as dry as this, with such constant high winds, it is easy to conceive of the very atmosphere we breathe, even in open air, being charged with bacilli of consumption and germs of kindred diseases. I believe the time is coming when there will be legislation against earth burials, and sanitary entombments or the ideal disposition of the dead suggested by the Rev. Charles R. Treat, of New York City, will be adopted, and "Campos Santos" or "Mausoleums," or "Mansions of the Dead" will take the place of the horrid graveyards and cemeteries that are now poisoning the air we breathe and spreading contagion and disease broadcast throughout the land. Desiccation will, as shown by the reverend gentleman, destroy the germs of disease, still retain us the form of our dead, and the plan provides for the perpetual care of the same. What a grand thing it would be if a place of that kind could be immediately provided for these people and they were compelled to use the same!

There is still another thing that these people do that conflicts with health; it is the weekly habit of coming to the Agency for rations, leaving these overheated, overcrowded, illy-ventilated houses in the winter season to travel through extreme cold for miles to the Agency, where they live for two or three days in cloth tents. Even the very young, only a few days old, are taken along and not infrequently contract severe colds that, with their weak constitutions, kill them or lay the train for acute consumption.

What is to be the remedy for all these evils? It may be summed up in one word: Education. Every child of school age should be placed in school. Unfortunately the Agency Boarding Schools are, as a rule, poorly constructed, illy ventilated, badly heated and without any kind of sewerage. The bill-of-fare is poor and the sleeping rooms bad. I am sure too much soup, usually called "stew," is given the pupils at the boarding schools of this Agency. There is too much fluid and not enough of solids given them to eat. Meats, beans, potatoes, etc., should be given them, cooked dry, boiled or baked. For dinner one kind of soup should be allowed. The school should be a model home; a place where every branch of industry is taught. A good gymnasium and well-appointed bath rooms should be in connection with every boarding school; physiology and hygiene should be carefully taught, and great stress should be laid upon habits of cleanliness and diet. Children should be placed in boarding schools on the Reservation at six years of age and kept there until sixteen, after which the more advanced might be sent to higher schools to complete their education.

The houses for dwellings for these people should be constructed on a plan that would give at least four rooms to every family; these rooms should be well ventilated and lighted. In every farming community of a radius of so many miles a practical farmer should be located who should be a married man, and his wife required to instruct the women in her husband's district in the art of cooking and housekeeping. For this service she should receive from the Government a just compensation. The farmer should have under his charge a supply depot where rations may be kept and once or twice a month he should issue the supplies. The plan of out-stations for farmers is now being adopted at some of the Agencies. The beef should be neatly slaughtered and issued from the block by the farmer. He should require every Indian not sick to perform so much labor every day. He should teach them by example and precept how to manage a farm,

care for his stock and agricultural implements.

The great trouble is now, has been and will probably continue to be to hold the Indian children up to what they have attained in school, the tendency is for them to sink back into the old habits and life once they are out.

In concluding this article it is only just to say that an honest effort is being made by the Hon. Commissioner of Indian affairs to place all Indian children of school age in school at once. The plan of our stations for farmers, with supply depots and the issuing of rations once a month, is now adopted at some of the Sioux Agencies. I am informed that the plan works well. All Agencies should adopt it. Credit is due to the few who are advancing. There are some Indians here, be it said, whose houses look inviting, the beds appear clean and their food not badly prepared. Whatever the effects of civilization may be on their health, we must admit that the only hope for them now is to push speedily onward. Civilization, education and Christianity must do all that can be done for them. To go back to the old life is an impossibility. The destruction of the buffalo made them a dependent race, and as such they must remain until far enough advanced in civilization to compete with the whites, then they may assert once more their independence.

HINTS FOR THE MANAGEMENT OF CONSUMPTIVES.

BY L. HUBER, M. D.,
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In a chronic wasting disease like consumption, it is advantageous sometimes to inculcate certain habits and usages. Some things must and will happen, and by habit or practice they may be accomplished with far less expenditure of force and less distress to the sufferer. Coughing, for example, cannot be entirely dispensed with. When the lesions in the lungs become comparatively quiescent, there may still be spells of coughing. When cavities form and discharge their contents with greater or less regularity it requires some efforts of coughing to perform the act. Under a physician's observation and instruction a patient may be trained to cough with one lung. When the irritation is unilateral and confined to a small area, this is an important accomplishment. It obviates several evils. Instead of indulging an explosive cough with much straining, whereby a general bronchitis is often excited, it tends to beget a tolerance and control over irritation, and to reduce it to a minimum. Patients whose nerves give way under the strain of a severe paroxysm of coughing, and who get into a fit of anger, usually intensify their suffering and lose courage to fight their disease. Physicians and nurses should take pains to instruct patients to be plucky and resolute under their trials.

Another habit which is advantageous to a consumptive is that of expectorating regularly. Lesions that accumulate and discharge much detritus are benefited by being kept clean, and nature's method of doing this is by throwing off the sputa as it accumulates. I have met patients who had been told by their physicians to restrain the acts of expectoration, instancing as an argument for such a course that infants and small children do not find it necessary to expectorate in lung diseases. I know two cases even, in which the patients were advised to swallow the sputa, if they could not entirely keep them back. Such instructions need only be mentioned; their dangerous and disgusting nature are obvious. The chief liability in withholding expectoration is deeper penetration of the disease in the lung tissue and new inoculations. To this I can certainly testify. Sometimes when an old lesion fills with matter during a night of sound sleep, a portion of the contents will practically "run over" and drain away. Following such an accident, there is often inflammation excited and a further extension of the disease.

Patients that are strong and vigorous often commit a grave imprudence by haste to get about their active duties in the morning. I know a laboring man, a sufferer from chronic phthisis, who is incapable of doing any work during the day, if he is not left to his leisure each morning to go through a paroxysm of "coughing and raising." This done, his respiration is free and easy, and remains so for the day. Another case occurs to me in which the patient on awaking would go into a fit of coughing, spring from bed, endeavor to dress and go after his chores. The coughing was greatly aggravated and much prolonged. On applying for medical aid he was instructed to lie quiet abed, until

he had finished coughing and expectorating each morning. After two weeks' trial of this plan, his cough abated and he improved considerably.

Attendants should caution their patients against over-taxing the heart. It is known that, when there are certain lesions, or when lesions are in certain stages, there is much embarrassment to the heart's action. Incautious movements or bodily exertions may precipitate a paroxysm of dyspnœa or a "sinking spell," with much suffering and no small amount of danger. I have seen dangerous and even fatal congestion of the lungs brought on in this way. In high altitudes patients must be especially watchful. In resorting to high regions it is always safest to keep comparatively quiet for a week or more until the lungs become somewhat adapted to the new conditions.

The consumptive patient's mind must often be disabused of the fallacy that cough constitutes essentially the disease, which leads to uselessly resorting to nostrums reputed to be never-failing as "cough cures." And he should be informed that an irritant within the lung produces the cough, which is simply nature's method of expelling foreign matters.

These hints may seem common-place. However that be, the fact is that if properly followed the moral control of a patient can be kept within reach, much suffering averted, and in not a few cases months and even years added to his life. Simply to leave this class of impressionable sufferers to their hard experiences and the suggestions of those around them, with all their hopes of recovery staked on generous supplies of medicines, is not a wise course. They soon begin to do a little of everything, and persist in nothing, and get beyond the doctor's care, which, given in time might have comforted, if not improved, them.

PALMAR ABSCESSES AND FELONS.

BY ENOS T. BLACKWELL, M. D.,

CEDARVILLE, N. J.

In that valuable department, the Periscope, in the REPORTER, August 2, 1890, there is an excerpt from the *Cincinnati Lancet-Clinic*, credited to Dr. H. H. Spiers, of Ohio, on Abscess under the Palmar Fascia. The author employs the seton, introduced near the annular ligament, and brought out at the flexure of two adjacent fingers, in preference to the lancet. His paper contains the following sentence, which is contrary to my experience, and, in my judgment, opposed to correct teaching. He says: "In the use of the lance, whether early or late, parts are severed that never again unite; the hand is left disabled as a consequence."

It has been my fortune to encounter in practice two cases of abscess under the palmar fascia. Of the first, I have a vivid remembrance, as it occurred upon my own right hand. There was tenderness and aching in the palm as I was about taking the cars for the World's Exhibition held in New York in 1853. A friend, in ignorance of my disability, grasped this hand heartily at parting, and the fervor of his touch I still fully appreciate. The motion of the cars aggravated the trouble, as every jar sent an additional volume of blood into the inflamed part. By the third day the agony was so great that I thought of applying to a surgeon for relief; but, being a stranger and rather shy, I deferred it to another day. Laying in a supply of opium in pills and of the wine of opium, I went to bed. But such a night of horrors! I turned from side to side about as fast as I was able to get over, although I had taken several grains of opium on retiring. Tortured by the pain, I was soon obliged to take more opium, the amount necessary to obtund the pain being seven grains. A somewhat violent palpitation of the heart followed the ingestion of the latter potion; but it soon subsided, and I obtained some fitful and imperfect sleep. During the night the pus made its way to the back of my hand, causing a swelling of the size of a walnut at the flexure of the ring and little finger. In the course of the forenoon a young naval surgeon made an opening in the palm near the flexure of the ring and little finger with a thumb-lancet, the only instrument at hand. There was complete and instant relief. The treatment henceforth to the cure was by poultices of slippery-elm and laudanum, changed whenever distress in the parts indicated reapplication. The integument of the entire palm as well as that upon the first phalanx of each adjacent finger, separated from the parts beneath, and was removed in the course of the cure, which occupied a full month. Passive motion of the fingers was perseveringly practiced from day to day, and no disability

followed this atrocious disease. Tenderness remained for a very considerable time.

My second case was in a man who applied to me for relief from violent and deep-seated pain in the palm of the hand, June 22, 1889. An incision was made over the painful spot, but owing to his timidity and the thickness of the overlying structure it did not reach the seat of mischief and no abatement followed. The hand was then dressed with ointment of the nitrate of mercury, covered in by adhesive plaster, as recommended by Dr. R. C. Kenner, of Louisville, Ky., for aborting felons and boils. (REPORTER, vol. lviii, April 14, 1888, page 465.) No improvement followed this application, some pus being probably already formed. On June 24, under anæsthesia, a deep incision was made at the most promising point. When the patient was allowed to come from under the influence of the anæsthetic, the pain was still very great and he was again anæsthetized, and the incision being continued to a still greater depth, the pus was reached and evacuated. From this time onward, under the means employed in the former case, his convalescence was steady and he ceased to visit me on July 1. His recovery was perfect.

I have treated many deep abscesses of the thumb and fingers, always making an early and deep incision, occasionally touching the underlying bone with the point of the lancet. As fluctuation can scarcely ever be perceived because of the tenseness and tenderness of the integument, the smallness of the deposit of pus and the depth at which it is situated, I often apply the lancet when uncertain of "a show" following the withdrawal of the instrument. A quick cure generally results from the lessening of tension and from the discharge of blood which diminishes the pus-producing principle. During over forty years' practice, I have never had under my own care a case in which disease of bone or anything untoward in the healing process occurred. This I attribute to the use of early and deep incision at the point of election, sometimes in anticipation of the formation of pus. The integument which becomes loosened from the underlying tissues in palmar abscess, though dead, forms an admirable covering for the sensitive structure beneath and should be left until it separates spontaneously.

The introduction of the seton, as practiced by Dr. Spiers, would seem likely to cause much pain, as the time employed in the operation would be much greater than that required in making an incision with an ordinary lancet. There would also be much likelihood that the needle would miss the pus-deposit, especially if it was not much extended or lay at great depth. The irritation of the ligament could not fail, I think, to add much to the suffering. While not doubting the success of the plan in very skilful hands, the method does not seem well adapted to general application.

PERISCOPE.

Koch on Bacteriology.

The *Lancet*, August 16, 1890, gives a summary of the address of Koch at the Tenth International Medical Congress, in which he declared that he had not much that was new to tell, but he would make a preliminary communication regarding the result of important new experiments. This communication had reference to a remedy for consumption discovered by him, which, however, he would not name till his experiments were ended. The rest of his address was an admirably clear account of the progress of bacteriological research. Only fifteen years ago one regarded the micro-organisms occasionally observed in the bodies of diseased animals and persons more as curiosities than as things essentially connected with the disease. And considering the great ignorance of their nature which then prevailed, this could not but be so; there were investigators, for instance, who declared bacteria to be crystalloid bodies, not living organisms. With the perfecting of the magnifying instruments, the application of staining, the propagation of organisms on nutritive media, culminating soon in pure cultivation, a rapid change took place. It became possible to distinguish a number of quite definite sorts with certainty, and to ascertain that they were distinctly connected with the diseases in which they were found. It was further ascertained that one sort of bacteria was not transformed into another, and the remarks of old writers on leprosy and consumption, for instance, even justified the conclusion that, just as certain diseases, presumably caused by micro-organisms, had remained unchanged, their germs also must on the whole have retained their old qualities. Within certain limits, indeed, deviations of

demeanor had been observed in some bacteria, but that was the case among the higher plants, too, without the varieties ceasing to belong to the species. The main gain of this period of research was the recognition of the fact that the thing was to discover as many morphological and biological qualities of a bacterium as possible, so as to be guarded against the danger of confounding various bacteria. There was still a danger of this with certain bacteria, the typhus and diphtheria bacilli for example, whereas it had been removed in the case of the tubercle and cholera bacilli by the very exact investigations of these organisms. In their case too, however, the bacillus must never be determined by one mark alone. He had experienced this in his own case, having for some time taken the bacillus of chicken cholera—for the special study of which he had not had material,—for a variety of the bacillus of Asiatic cholera, till a new series of experiments had convinced him of his error. Whether the germ of chicken cholera would have an injurious effect on human beings was still a question, and a question that would not easily be answered, as one could not well make direct experiments on human beings, but must wait to see whether the bacillus of chicken cholera would not one day appear in a human cholera patient. As to the etiological connection of the noxious bacteria with infectious diseases general opinion was at first against it, and strict proof was necessary. It was necessary to prove in all cases that the disease and the micro-organism always appear together, that the micro-organism in question does not appear in any other disease and that the micro-organism, propagated outside of the body through several generations, always produces the same disease if it gets into the body again. Now that the etiological connection had been proved in this manner in anthrax, tuberculosis and erysipelas, and the resistance of opponents broken, one might confine one's self in further cases to the two first lines of proof. This proof had still to be given in the case of abdominal typhus, ague, leprosy, diphtheria and Asiatic cholera, but in the case of the latter it was already generally assumed that the cholera bacillus was the cause of cholera. As subjects of investigation for the immediate future Koch designated the question whether the pathogenic bacteria live only in the body or outside of it too, and in the latter case only occasionally get into the body and cause disease; also the manner of getting into the body and their demeanor there. The next advance in bacteriology was the discovery of the poisons excreted by the bacteria, which were now regarded as the cause of death in fatal bacterial diseases, for the opinion that the white blood-corpuscles resist the bacteria was more and more losing ground. Koch then discussed the spore-formation of some bacteria and the influences of air, warmth, moisture and chemicals on bacteria. Direct sunlight quickly killed bacteria, the tubercle bacillus, for instance; even daylight produces the same effect, though more slowly. Cultivations of the tubercle bacillus, propagated for from five to seven days at a window, died. Moisture was necessary for the growth of bacteria; moisture, however, on the other hand, hindered their spreading. A bacterium never rose; its transmission took place only by the flying of dust, if it remained for some time capable of life in dry air. By means of improved staining methods some knowledge of the inner structure of bacteria had recently been gained; there seemed to be an inner nucleus of plasma with flagella proceeding from it. In certain infectious diseases—measles, scarlet fever and small-pox, for instance—the presence of a pathogenic bacterium had not yet been proved. In hydrophobia, influenza, whooping-cough, trachoma, yellow fever, cattle plague and pleuro-pneumonia of cattle, also, no specific bacterium had been discovered, though the infectious nature of these diseases was evident. And perhaps these diseases were caused, not by bacteria, but by organic parasites belonging to quite another group of animated beings. In the blood of malaria patients protozoa had been found, which were now suspected of causing this and other infectious diseases. Whether protozoa, the lowest representatives of the animal world, really deserved this suspicion would have to be decided by a method analogous to bacteriological pure cultivation. But now there remained the question what had been the practical utility of all these extremely laborious investigations. The investigator, indeed, ought not to inquire after the immediate practical utility of his work; in the present case, however, the question was not entirely devoid of justification. Nor was it quite impossible to give it a satisfactory answer. Had not bacteriological investigation alone led to effective methods of disinfection?

The value of water filtration, the question of the filtering qualities of the soil, of the fitness of surface water for use as drinking-water, of the best method of constructing wells, the sterilization of milk—so important especially for the nutrition of infants—the investigation of the air in school rooms and in sewers, the proof of the presence of pathogenic bacteria in the soil and in the air, were all bacteriological questions or conquests. The diagnosis of isolated cases of Asiatic cholera rendered timely preventive measures, the discovery of tubercle bacilli rendered timely therapeutic measures possible. Besides these, indeed, only Pasteur's inoculations against hydrophobia, anthrax, symptomatic anthrax and swine erysipelas remained to be mentioned, and the first of these probably did not belong to bacteriology at all, though they had grown on its soil. "But," concluded Professor Koch, "it will not always remain so. Therapeutics proper will also derive benefit from bacteriology, hardly, indeed, for diseases of rapid course, in which prevention will remain the main thing, but certainly for slow diseases such as tuberculosis. Others also, like Billroth, maintain this hope; but the mistake has frequently been committed of beginning the experiment on human subjects. I regard this as wrong, and look upon the alleged successes of various remedies, from benzoate of soda to hot air, as illusory. For years past I have been seeking means for the therapeutic treatment of consumption, but I began with the pure cultivation of the bacillus. I found a number of substances—ethereal oils, tar-pigments, mercurial vapor, salts of gold and silver, especially cyanide of gold, for instance; some of which, like the last, even when very strongly diluted, prevent the growth of the bacillus, which, of course, suffices to bring the disease to a standstill. All these substances, however, have proved ineffectual when used against the bacillus in the bodies of animals. I continued my search, however, and found what I sought. Susceptible as the guinea-pig is to the tubercle bacillus, it proved non-inoculable when treated with the substances in question, and even when its disease was far advanced it could be brought to a standstill by this means. This fact may give occasion to search for similar effective remedies in other infectious diseases also, and here lies the field for an international contest of the highest and noblest kind."

Treatment of Tuberculosis with Boric Acid.

The Paris correspondent of the *Lancet*, August 16, 1890, says: For the past five years, Dr. Gaucher has been studying the action of boric acid on pulmonary tuberculosis. He has recently made public the results which so far have accrued from his researches. He first of all determined by means of experiments on animals the toxic limits of the acid when administered internally, and he found that this stood at the ratio of about a gram to a kilogramme of the animal's weight. As to its subsequent elimination from the system, he found that this took place very readily and even rapidly by way of the renal secretion; there was therefore little fear of any accumulation or tardy cumulative action. But, what was an equally important and desirable result, he found that the boric acid was also eliminated appreciably through the expectoration; the sputum of tubercular patients whom he had subjected to this treatment was found to be very freely charged with the acid. Some of his experiments are not only interesting, but certainly encouraging in their ascertained results. For example, he took two or three rabbits, and injected into their lungs through a needle syringe a few drops of a solution of pure tubercular culture. In this way he set up a local tuberculosis which became caseous but not generalized. Some of the animals soon succumbed to pulmonary tuberculosis, and the surviving ones were shortly after destroyed. Well-marked phthisis was found in all *post-mortem*. He next repeated his inoculations on healthy rabbits in precisely the same manner, but he now fed the animals on bran mixed with boric acid. After a time these also were sacrificed, but, contrary to what he found in his initial experiments, their lungs were quite free from any tubercular lesion, neither was any found elsewhere. It is submitted that, although these experiments on rabbits may not be altogether conclusive as to a like action of boric acid on human tubercular subjects, they are at least—in the face of the enormous mortality from phthisis and hopelessness of therapeutic methods in general in this disease—worthy of serious attention and more extended trial. As to clinical results, so far as it has been tried, the boric acid treatment has been found to bring about a notable diminution in the expectoration, which became more fluid and less purulent. Considerable time is, of course,

necessary before speaking of remote or final results, but in the cases in which the treatment has been tried, and which have been under observation for a considerable period, it may be said that in general they improved in every way, while the tubercular trouble in the lung appeared to be at a standstill. The dose administered in these cases was one gram in divided doses in the twenty-four hours. This, on the weight theory, must be considered insufficient. Taking the average weight of a patient to be sixty kilograms, and putting the limit of dose at twenty centigrams for every three kilos, four grams of the acid should be given per day, the dose being, of course, graduated up to this amount. Boric acid will be found as a rule to agree well with the stomach, and is easily taken; it is not caustic, has no disagreeable taste, and in some cases was found even to check the diarrhœa when this existed.

Tait on Medical Education.

At the recent meeting of the British Medical Association Mr. Lawson Tait, as the *Medical Press*, August 6, 1890, says, delivered a characteristic oration, in which he compared, as to their practical value, the modern biological training of the student with the ancient practical instruction obtained by the apprenticeship system. He was, as usual, forcible and original, but also dogmatic and strong in his phraseology. His line of argument will, however, commend itself to many practical surgeons and physicians, for he insisted that our surgery must and always will be in a large degree a handicraft, and, therefore, chiefly dependent for its perfection upon acquired skill of the hand, the eye, and the brain, and that biological teaching, while perfectly indispensable to the just knowledge of the practice of surgery and medicine, is, when of the improper form, an incubus and hindrance to medical progress.

"I plead most earnestly," said Mr. Tait, "that our successors should be spared that senseless grind at useless details of anatomy with which our own young memories were burdened. Still more strenuously I appeal that our student be altogether relieved from that senseless system of biological training which has set in as a fashion at Cambridge, at Oxford, and at Edinburgh. Not many years ago I attended a lecture on physiology given to medical students, which consisted in an explanation of a brass instrument resembling a model of Clapham Junction, intended to explain something about muscular fibre. I could not understand it, of course, I was too much of an old fogy, but I had this consolation, that when talking over it with my young friends who had attended the lecture with me, they could make nothing of it either. But there was a difference between us—it was demoralizing to them, for it discouraged them, and small wonder!

"I remember that we had to learn that the direction of the anterior cornu of the fourth ventricle of the brain ran a course which was backwards, outwards, downwards, forwards and inwards, and we were enabled to remember these important facts by the word 'bodfi.' Has 'bodfi' ever served any of you at the bedside? Is there any conceivable condition of human accident or ailment in which 'bodfi' could assist you to relieve your patient? Students will find, as I have done, that they will be of no assistance to them to estimate the character of a delirium, and no amount of knowledge of the arrangements of the electrical currents in muscular fibre will help them to determine the proper relations of a splint.

"I, therefore, vote cordially with those who demand the restoration of the apprenticeship system in such fashion as modern requirements indicate. It is, of course, no longer to be a seven years' slavery in mixing pills and spreading plasters, for the modern manufacturing chemist does all that for us now, but it should be a period of at least two years spent in learning how to avoid making an ass of himself in the sick room as the modern, newly-fledged, qualified assistant is certain to do for the first few years of his second pupilage, in spite of his biological lore.

"Our biological practitioners have no experience of either of these lines of research, and they, therefore, fail miserably. I had to meet a most excellent and estimable practitioner of the old school in the North of England some months ago, and he told me that within a year he had had three assistants, all Bachelors of Medicine and Masters of Surgery from one of our most flourishing biological schools. 'Sir, would you believe it,' he said to me, boiling with indignation as he thought of the needs of his large colliery practice, 'not one of them could put on a splint! and the third was such an ass that he used to lecture a collier's wife on how fishes lost their eyes in coal pits instead of supporting her perineum!!!'"

Treatment of Typhoid Fever with Cold Baths.

M. Debove, in a paper read at the last session of the Paris Société Médicale des Hôpitaux on the treatment of typhoid fever by cold baths, declared that he had not been convinced by a recent paper of M. Merklen that this was the best treatment. His own mortality during the last six years was 11 per cent., or during the last two years 9.2 per cent. Now M. Merklen estimates the mortality from typhoid in Paris hospitals treated by cold baths as 9.92 per cent. M. Debove does not prescribe active medication, but believes in keeping up copious diuresis. To this end he supplies his typhoid patients with abundance of liquid, and if the quantity of urine passed does not appear to him sufficient, he "stimulates the zeal" of the attendants to get the patient to drink more; the total amount of fluid which should be taken daily ought, he says, to be not less than five or six quarts. M. Debove, who does not deny the good effects of baths, suggests that they are probably due to the increased quantity of urine secreted, which, as in the case where diuresis is produced by drinking, carries off the *materies morbia* from the system. According to M. Gérin-Rose, who followed M. Debove, still more successful results may be obtained by carrying out the following indications: (1) To produce intestinal antisepsis by means of naphthol and salicylate of bismuth, (2) to lower the fever by means of very large doses of quinine and warm baths (at 86° F.), and (3) to keep up the patient's strength. Of forty-three patients treated during the last eighteen months in this way only one died. —*Lancet*, August 16, 1890.

Tumor of the Bladder Diagnosticated with the Cystoscope.

At a meeting of the New York Surgical Society, April 9, 1890, Dr. Meyer presented a tumor which he had removed from the bladder of a patient fifty-five years old. The diagnosis had been made by means of the cystoscope. The patient had suffered for a long time from hematuria. When consulted, Dr. Meyer, instead of using a sound to search for stone, at once tried to introduce the cystoscope under cocaine anæsthesia. This he found impracticable, and three days afterwards gave the patient chloroform. He then made out with the utmost certainty the growth on the left wall of the bladder. He could also see the blood oozing from it. The result of operation had been to confirm the diagnosis so made. The tumor, when removed, was found to be malignant.

Mitigation of Syphilis.

In a charming address, published in the *Birmingham Medical Review*, August, 1890, Dr. Alfred Freer says:

I am old enough to remember M. Ricord's instructive and oft amusing lectures under the trees of the garden at the Hôpital du Midi, when he used to operate *sub die* early in the morning. At that time one could not help looking at the world through a syphilized atmosphere, and when I came to country practice I found plenty of examples of the old scourge; but for many years past I have seen less and less of syphilis, so I suppose the nymph is beginning to take up residence more exclusively in cities and large towns; or perhaps she is shy of appearing before graybeards. Her prime exhibit, the true Hunterian chancre, on which the great Ricord used to expatiate so eloquently, has almost gone from my gaze. It is a matter for national congratulation that, owing to the improvement in habits of cleanliness among the people, if not to improved morality, this disease is far less virulent than formerly even in our large centres.

Rotterine.

"Rotterine" is the awkward name given to a new antiseptic which has been devised by Dr. Rotter, and recommended for its non-toxic effect. It is composed as follows:

℞	Sodii chlorid.	gr. ijss
	Zinci chlorid.,	
	" sulpho-carb.	āā gr. xlv
	Acid boric	gr. xxvij
	" salicyl.	gr. vj
	" citric,	
	Thymol.	āā gr. j

Mix. Dissolve in one pint of water.

The citric acid is added merely to get a clear solution of the chloride of zinc, and the thymol is intended simply to distinguish the mixture from ordinary water, which it resembles in appearance. The constituents are given in about one-tenth of the strength required to render them active singly. Combined in this way they form a mixture pos-

sessing astonishing antiseptic powers, the germicidal influence exerted being said to be greater than that of a solution of 1-1,000 of corrosive sublimate. In his first attempts, Dr. Rotter used with the above traces of corrosive sublimate and carbolic acid; but as he found the mixture quite as effective without them, he concluded they could be left out.

Microbes in Hail-Stones.

Bacteria of various kinds have been found in ice and snow; and Dr. Fontin, a Russian observer, has demonstrated that hail-stones are not free from them. He has found that the water produced by the melting of hail-stones contains, on an average, 729 bacteria per cubic centimeter. Neither yeast fungus nor mould was present, but nine different kinds of bacteria were found. As the ordinary dwelling-place of the *Bacillus mycoides*—one of the species found—is the earth, it appears that microbes of terrestrial origin may be carried up into the air, and thus rain, snow, and hail may be the direct means of conveying infection.

State Society Meetings are not Popular.

The *New York Medical Record*, August 23, says: Ohio has over five thousand doctors. About one hundred were at the late meeting of its State Medical Society. Georgia has two thousand doctors. Eighty were at the last annual meeting of the State Medical Society. New York has probably ten thousand doctors. The attendance at the State Society meetings is never counted in more than the hundreds. Perhaps if the meetings were held only once in five years the attendance would increase. But then, perhaps, the length of the papers would too. Annual meetings with a slim attendance seem preferable.

Antiseptic Liquid.

The following formula is in use in some of the hospitals and dispensaries as an antiseptic dressing:

℞	Boric acid	240 grains
	Salicylic acid	30 grains
	Water	2 pints

Dissolve.

Fences for Malaria.

Mr. Stanley endorses the old popular notion that protection against malaria is afforded by trees, tall shrubbery, or even a high wall or close screen, around a house, between it and the wind-currents. Emin Pasha told him that he always took a mosquito-curtain with him, as he believed that it was an excellent protector against miasmatic exhalations of the night. Stanley suggests a respirator, attached to a veil or face-screen of muslin, to assist in mitigating malarious effects, for travelers in open regions. These facts tend to confirm the opinion that malarial affections are caused by microbes, which are unable to pass mechanical obstructions.

Palatable Castor-Oil Mixture.

In the following preparation of castor oil the disagreeable taste of the oil is—as investigation shows—replaced by a pleasant flavor of almonds.

℞	Castor-oil	30 parts
	Bitter almonds	2 "
	Sugar	30 "
	Gum tragacanth	½ "
	Orange-flower water	10 "
	Water	120 "

Mix.

The only drawback to this mixture is that it requires a good deal of it for a dose, a teaspoonful of the oil being contained in about five teaspoonfuls of the mixture.

Experiment on a Guillotined Body.

The newspapers reported September 2, that Jacques Constant, who was sentenced to death at the Vosges Court Assizes for murder and robbery, was guillotined the day before at Epinal. Within one minute after the knife had fallen the body was handed over to Dr. Gley, Professor of Physiology of the Faculty of Paris, and Dr. Couturier, who awaited the arrival of the body in a room close to the scene of the execution. Dr. Gley stated that he was able to observe the heart beating for six minutes after he received the body, his experiments proving that the contractions of the ventricles and auricles are independent of each other. This is the first time in the history of science that such an experiment has been made on a human body. Fuller and more exact reports of this matter will be looked for with interest.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
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P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

CANNABIS INDICA IN GASTRIC NEUROSES AND DYSPEPSIA.

Cannabis indica is a remedy which a few physicians esteem highly and use frequently, but which many scarcely ever employ. In migraine, it is true, its value is well established; but though it is very serviceable in diarrhœa, intestinal colic, dysmenorrhœa and as a stimulant to the appetite, there is reason to believe that its efficacy in these affections is not known and is seldom invoked. It is pleasant to note, therefore, that Germain Sée, the eminent French physician, whose studies of the pathology and treatment of dyspepsia have become famous, has at length made a study of this drug. In a communication to the Académie de Médecine, July 22, 1890 (*La Médecine Moderne*, July 24 and 31, 1890), Sée gives first, the pharmacology of the drug; second, a clinical comparison of the gastric dyspepsias and neuroses, and third, the indications for using cannabis. The paper is interesting throughout, but only the third part can be reviewed at present.

Sée's experiments have been made with the oily extract, of which he gives five-sixths of a grain daily, divided into three doses, in the form of a potion. More than this, he says, exerts a toxic action. The chemical principles of cannabis, such as the tannate of cannabine and cannabinon, have given results neither precise nor favorable, doubtless because they are not the true active principles. The affections of the stomach in which the extract has been tested have been chiefly the non-organic. Sée divides them into two groups. The first comprises the chemical alterations of the gastric juice, including increased hydrochloric acidity, the most frequent condition in all dyspepsias; hyperacidity of organic acids (lactic and acetic); and absence of acidity. The second group includes the gastro-intestinal neuroses which occur without any chemical alteration of the gastric juice.

Sée finds that cannabis constantly allays the painful sensations and re-establishes the appetite in whatever condition pain and anorexia occur. If, however, they depend upon an excess of hydrochloric acid it is absolutely necessary to aid the action of cannabis by the use of large doses of bicarbonate of soda given at the end of stomachic digestion, that is to say, about four hours after food has been ingested. Cannabis exerts no influence upon atony and dilatation, except perhaps of the stomach. These conditions rarely yield unless it be to lavage and hydrotherapy. It does act favorably, however, upon spasm of the stomach and vomiting of a nervo-motor kind. Upon the production of gas it appears to have no direct influence, but by promoting eructations it exerts a useful action in expelling the gas and, still more, in stopping the pain which occurs in pyrosis resulting

from the gas evolved by fermentation. Sée finds, moreover, that stomachic digestion is favored by cannabis when it has been retarded from deficient nerve power or is painful from excess of hydrochloric acid. It effects no improvement in digestion when there is deficiency or absence of hydrochloric acid, though it may render digestion less painful.

As to the remote phenomena of gastric affections, such as vertigo, migraine, insomnia, palpitation and even dyspnœa, cannabis often removes them entirely; but it in no degree modifies the nervous dispositions which appear as hypochondria, hysteria or neuresthenia, notwithstanding these states often have their point of departure in affections of the stomach, either chemical or nervous.

From this brief *résumé* of Sée's paper it will be evident that cannabis in disorders of the stomach acts pre-eminently as a sedative; and if the observations referred to are as reliable as they appear to be, it is a sedative without the inconveniences of narcotics, such as opium and chloral, of absorbents, such as bismuth, or of such general sedatives as bromide of potassium or even of antipyrin, all of which affect digestion unfavorably. Of course the use of cannabis is not intended to replace that of other curative methods or remedies, but largely to relieve the discomforts of painful and difficult digestion and to improve the appetite, until the dyspepsia is cured.

NERVE NÆVI.

In the REPORTER, July 19, there was a short note on page 86, describing a form of skin disease recently reported under the title of "nerve nævi." As this term opens up a subject by no means familiar to medical men in general and even to those specially acquainted with diseases of the skin, we give our readers the following summary of what is known regarding it.

The term "nerve nævi" was given by Theodore Simon in 1874 (*Archiv für Dermatologie und Syphilis*, vol. iv, p. 324) to a condition of the skin in which there is hypertrophy of the papillæ, thickening of the epidermis and pigmentation of the rete mucosum in a region corresponding to that of the distribution of the filaments of one or more cutaneous nerves. Other names given to the disorder are: by von Bärensprung, *nævus unius lateris;* by Gerhardt, *papilloma neuropathicum;* by Thomson, *nævus papillaris;* by H. Beigel, *papilloma area elevatum.* Simon ascribed the condition to vaso-motor and trophic changes, von Bärensprung to intra-uterine disease of the fetal spinal ganglia, von Recklinghausen to congenital neuritis leading to vaso-motor disturbances. Ziegler (*Lehrbuch der Allgemeinen und Speciellen Pathologischen Anatomie*, 6th edition, 1890, vol. ii, p. 462) describes the affection as one in which papillary, warty nævi appear at times, in greater or smaller numbers, in the course of one or more cutaneous nerves. Von Bärensprung, in 1863, described the manifestation as unilateral, occurring in stripes, along the course of the branches of one or more spinal nerves, as a papillary hypertrophy, with the formation of more or less pigment. Kaposi (*Wiener medizinische Blätter*, June 4, 1885, p. 718) relates a case under the name of nævus verrucosus universalis. Recently Koren, quoted by Peterson in the *Journal of Cutaneous and Genito-urinary Diseases*, February, 1890), has published, as ichthyosis linearis neuropathica, a case in which ichthyosis cornea is described as occurring in brownish papillomatous stripes in the course of the median, ulnar and radial nerves of the right arm. Plenk, in his definition of nævi included, besides spots, the changes in the skin induced by excrescences, if congenital. Von Bärensprung included among nævi not only true congenital but all local degenerations of the skin which, once developed, do not change, but, without influencing the general health, persist.

The cases reported do not agree in all

particulars. Some were observed at birth; others were developed later in life; the most were unilateral. A case of ichthyosis linearis neuropathica is referred to as being bilateral. There is no regularity of distribution, though as a rule this agrees with that of one or more cutaneous nerves. In one case it is described as being like that of crossed paralysis, involving the face on one side and the trunk and extremities on the other. In some of the cases recovery took place. In Geber's case (*Vierteljahrschrift für Dermatologie und Syphilis*, 1874, vol. i, page 3), two nodules taken from the face were found to have become sarcomatous; and the patient subsequently died.

There are certain points of resemblance between the affection and ichthyosis. The latter is ordinarily congenital. Peripheral nerve lesions have been found associated with it. The disease may also be acquired as a sequel of neuritis and of injury of nerves.

This explanation is not so clear as we might wish; but it is as clear as the circumstances permit. It is presented in order that the readers of the REPORTER may know what is the present state of knowledge of the subject and with regret that medical nomenclature should be burdened with a term the definition of which is so uncertain.

ADVERTISING MEANS FOR PREVENTING CONCEPTION.

The *Medical Press*, July 30, 1890, complains that in England the announcement of a marriage or a birth is followed by confidential letters offering, in exchange for the sum of one guinea, information bearing on the means of preventing any addition to the family circle. Some months since our contemporary had occasion to call attention to the insidious circular of a certain Winkworth; and very recently a correspondent had forwarded for inspection, not only a circular from this enterprising and unscrupulous man, but also one from an Adeline Dumas, who addresses herself to women, while the former confines his attentions mainly, if not exclusively, to men. This woman states, as an additional inducement, that her contrivance "can be used without the knowledge of the husband"—a point upon which particular stress is laid. The *Medical Press* says it will not now enter upon a discussion of the vexed question of the desirability of disseminating a knowledge of the ways and means of restricting the number of children, but must protest against this method of imparting such information.

It is curious to find so free rein given in England to the dissemination of information which ought never to be distributed except under such precautions as would occur to prudent medical men. This particular piece of information is undoubtedly of great interest to the community; and, we believe, one which with proper restrictions, may be of very great service at times; but to make it an article of merchandise, and the common property of all newly-wedded people is an indecency which might well attract the attention of the English Government.

MODERN HOMŒOPATHY.

The *Pacific Medical Journal*, September, 1890, contains the first instalment of a paper by Dr. Samuel O. L. Potter on the beliefs and practices of homœopathic physicians as indicated by their own writings. It is very interesting reading and likely to attract attention from homœopaths and regular physicians alike. It shows how wide-spread is the conviction in the ranks of homœopathic practitioners that the law of similars is not a law of universal applicability.

—To detect fecal matter in drinking water Griess recommends a feebly alkaline solution of para-diazo-benzol-sulphuric acid which, with water contaminated as indicated, will produce a yellow discoloration within five minutes.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

MINERAL SPRINGS AND HEALTH RESORTS OF CALIFORNIA, WITH A COMPLETE CHEMICAL ANALYSIS OF EVERY IMPORTANT MINERAL WATER IN THE WORLD. Illustrated By Winslow Anderson, M. D., Assistant to the Chair of Chemistry and Materia Medica, and Teacher of Chemistry in the Laboratories of the Medical and Dental Departments of the University of California, etc. 8vo, pp. xxx, 384.

The basis of the present volume was an essay read before the Medical Society of the State of California. The essay was awarded the annual prize of the Society. Its author, who is also joint editor and publisher of the *Pacific Medical Journal*, has since enlarged its scope, so that it now includes a brief treatise on balneo-therapy and climatology, and comparative analyses of the waters of the springs of California, of Europe, and other parts of America. The work contains the names of over two hundred California springs, with about one hundred analyses. Many of the latter Dr. Anderson has made in person, his labors in this field covering a period of several years. The more important springs, or perhaps it would be better to say the ones which have been most developed by commercial activity, appear to be in the vicinity of Cloverdale and Colistoga, in Mendocino and Napa counties. The geyser region is sixteen miles from Cloverdale and twenty-six from Colistoga The author gives a vivid description of the drive by stage from Cloverdale to the geysers.

The book is rendered more attractive to the average reader by the numerous illustrations. These cannot be said to be works of art, but they are very helpful to the reader in understanding the text. The copious indexes make ready reference easy. The author is to be congratulated upon having done a great deal towards popularizing the knowledge of California's mineral springs. He seems to be justified in his belief that all that is needed to make them as serviceable as the springs of the East and of Europe is their further development and the scientific employment of their waters.

FLUSHING AND MORBID BLUSHING. THEIR PATHOLOGY AND TREATMENT. By Harry Campbell, M. D., Senior Assistant Physician and Pathologist to the North-West London Hospital. 8vo, pp. x, 270. London: H. K. Lewis, 1890.

After some preliminary remarks upon the physiology of the skin and a description of the way in which hyperemia and pallor are produced, Dr. Campbell proceeds to roughly define a flush as a nerve-storm in which a rush of blood to the skin and a sense of heat are generally the most obtrusive manifestations. A blush is distinguished from a flush by its exciting cause—some emotion. As regards the pathology of a flush, he says it belongs to a very comprehensive class of nerve-storms, closely allied to, and in fact sometimes indistinguishable from, an epileptic or a hysterical aura, and starting like them in a nervous level situated high up—possibly even in the highest level; the parts ("nervous arrangements") involved being more particularly those which represent the organic viscera—above all, the thoracic viscera.

The second part of the book is devoted to Blushing. The author seeks to justify the term "pathological" blushing, on the ground that blushing hampers the individual in his intercourse with the world, causes him to shun society, to seek solitude, and to lead the life of a recluse. He finds the great cause to be shyness, which in turn is made up of excessive self consciousness, want of self-esteem, and undue sensitiveness to the opinion of others. A large number of secondary causes are given and illustrations in the shape of brief reports of cases are presented.

Some useful hints on treatment are found in the concluding chapter. The author speaks well of the dusting powders recommended by Tilt, which consist essentially of camphor, bismuth and starch, or camphor, oxide of zinc and starch; and also of external heat, as from hot water or by radiation from a hot stove. The most reliable internal remedies appear to be ergot, turpentine, nitrite of amyl and nitro-glycerine, and iron. Dr. Campbell warns against the use of stimulants to relieve the faintness attending the flush, and says that in such cases ammonia, ether and nitro-glycerine are admirable substitutes

The author has succeeded in writing an instructive book on emotional symptoms so common that, at first sight, it seems almost absurd to dignify them with a physiology, pathology and treatment. Those who are subject to uncontrollable blushing, however, and still more those who are distressed by flushings at the menopause are real sufferers and are extremely grateful for any relief that may be afforded them. The book is a valuable contribution to the physiology of the vaso-motor system, and those who have patients afflicted with flushing or with morbid blushing will be glad to read its pages.

PRACTICAL ELECTRICITY IN MEDICINE AND SURGERY. By G. A. Liebig, Jr., Ph. D., Assistant in Electricity Johns Hopkins University, etc , and George H Rohé, M. D., Professor of Obstetrics and Hygiene, College of Physicians and Surgeons, Baltimore, etc. 8vo, pp. viii, 383. Profusely illustrated. Philadelphia and London: F. A. Davis, 1890. Price, $2.00.

The authors have divided their book into three parts. In the first part they discuss concisely the laws of electricity and magnetism, the various kinds of batteries and cells, currents, electrolysis, polarization, dynamos and motors, and storage electricity. The second part is devoted to electro-physiology, electro-diagnosis, and electro-medical apparatus. The third part is taken up with general therapeutic effects of electricity, and methods of application of electricity, and with special electro-therapeutics.

The plan of the book is excellent, and the subject-matter well selected and presented in a clear, straightforward manner. The authors appear to have made an earnest effort to be practical, and to give the physician just the kind of knowledge he will require, to understand the application of electricity to medical purposes. In this they have achieved marked success.

A New University in France.—The General Council of the Haute-Garonne has drafted a petition for the establishment of a university at Toulouse, and the mayor of that city has opened a subscription list for the benefit of a medical faculty to be attached to the university.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Ale and Beef.

We have received from the Ale and Beef Company, of Dayton, Ohio, specimens of their ale and beef, which proves to be a very pleasant preparation of these ingredients. The ale is of fine flavor and good keeping qualities, and the addition of peptonized beef increases its nutritive properties. We can speak of its satisfactory employment in one case of phthisis, and one of general debility. It has also acted very advantageously as a hypnotic. It has made a very favorable impression, and we think it an article which will justify the hopes of those who look to it for aid in promoting general nutrition, and as combining a mild alcoholic stimulation with the tonic and soothing effects of hops.

Compressed Antiseptic Pastilles.

French, Richards & Co., send samples of compressed pastilles made after the formula of Dr. Carl Seiler, for use in making a spray or wash for the throat or nose. One of these pastilles, dissolved in four tablespoonfuls of water, may be used as Dobell's solution would be. They are exceedingly convenient to prescribe or to dispense, and are a valuable addition to the medicinal armamentarium of physicians.

Correspondence.

Disinfection with Lime.

To the Editor.

Sir: In the Reporter of August 30 there is a translation from the *Revue Médicale* on the "Disinfection of Stools with Whitewash." I have used slacked lime to destroy the germs in stools and urine for a number of years, and have more confidence in it than in many of the much-vaunted disinfectants. Lime in excess will destroy soil, and when the soil is once destroyed by lime it will not for years promote and sustain vegetation. Farmers, knowing this so well, always put their lime pile in the same place. My method is to slack a lump of lime and add enough water to keep it very thick. To each evacuation from the bowel or bladder I add a quart or more of the lime, mix it thoroughly, let it stand for two or three hours and bury it a safe distance from the water supply. I am satisfied that if enough lime is added to the feces and urine the germs will be destroyed and the danger from infection averted. Practically, the results in my hands have been satisfactory. Let our *savans* test it, and report pro or con.

I am at present engaged in writing an article on "How to Succeed in the Practice of Medicine," and will be greatly obliged to all who read this to write me their views on this subject.

Yours truly,

J. B. Carrell, M. D.

Hatboro', Pa.

Notes and Comments.

Treatment of Syphilis of the Nervous System.

In a paper read before the Neurological Section of the Tenth International Medical Congress at Berlin, and published in abstract in the *Medical Press*, August 6, 1890, Dr. Julius Althaus, of London, laid down the following rules: The prophylactic treatment of nerve-syphilis he considered highly important, seeing that the group of maladies in question belongs to the gravest diseases with which we have to contend in practice, having no tendency to spontaneous improvement or cure, but a strong drift towards deterioration and death; and being, even if judiciously treated, extremely liable to sudden and severe relapses. He divided prophylactic treatment under two heads, and recommended the excision of the primary sore wherever this is practicable, to destroy the virus in the beginning, or at least to greatly attenuate it; and a mercurial treatment for about three months from the appearance of secondary symptoms. According to his experience, mercury efficiently given at this stage acts as a true germicide, leaving the patient's constitution uninjured to such an extent as if he had never had the disease.

If no such treatment has been followed, there is in any case the possibility, and when there exists a neurotic tendency even a great probability of the nervous system

eventually becoming affected; more especially where such exciting causes as anxiety, grief and excitement, fatigues and privations, exposure to wet and cold, injuries to the head, alcoholic and sexual excesses, and hard intellectual work, come into play. Dr. Althaus finds that a neurotic tendency existed in more than half of his cases, and recommends bracing up the nervous system of patients who have had syphilis, after the mercurial course is finished, by every means in one's power, so as to enable them to resist any inroads of the disease on that system.

For the curative treatment of nerve-syphilis he considers the periodical and long-continued hypodermic injection of small doses of a non-irritant insoluble preparation of mercury the most important remedy. He passed in review the several modes of employing the metal which have hitherto been in use, and recommends what he terms "the carbolized mercurial cream," a preparation which consists of metallic mercury rubbed up with lanoline, and afterwards mixed with a certain proportion of carbolized oil. He described the pharmacological properties of this preparation, claiming for it the following advantages:—Perfect homogeneity of the mass; great stability; painless injection; absence of swellings and abscesses; great efficiency in truly specific lesions; and absence of the risk of stomatitis and dysentery, if a certain dose is not exceeded. Dr. Althaus then gave his opinion about the therapeutical value of iodide of potassium, general tonics, the constant galvanic current, which latter he considers the most important remedy for secondary ordinary lesions and for relieving certain distressing symptoms; and on the application of cold and other agents in the treatment of nerve-syphilis. He concluded his paper with expressing the hope that the prognosis of these affections in general will eventually become more favorable in proportion as the principle of treatment is better understood and more energetically carried out in the beginning of the malady.

Rupture of Rectum.

Dr. George R. Fowler, of Brooklyn, reports in the *Annals of Surgery*, August, 1890, a remarkable case of rupture of the rectum with the Petersen "balloon," during a supra-pubic lithotomy. After discussing the occurrence and mentioning the fact that the patient died in a few hours, Dr. Fowler says the quantity of water used to distend the rectal colpeurynter was rather below than above the average employed by surgeons. In fact, two ounces less than the minimum quantity mentioned by leading writers as necessary to attain the object of the distension was employed in this case. Cadge, in the course of a discussion on supra-pubic lithotomy before the Royal Medical and Chirurgical Society, at the meeting of March 30, 1886, relates a case in which he introduced 18 ounces of fluid in the rectal bag for the purpose of a supra-pubic lithotomy. When the bag was removed from the rectum a teaspoonful of blood followed, and then Cadge's suspicions were aroused. The patient went on very well for the first few days, when symptoms of suppression of urine arose. The patient died, and at the autopsy it was found that a rupture of the upper part of the rectum, between it and the bladder wall, had taken place. Advanced renal disease was also present.

M. Nicaise, at a meeting of the Societé de Chirurgie of Paris, October 3, 1888, relates the following case: Patient, 65 years old, admitted for vesical calculus, which had produced chronic lesions of the urinary apparatus. Several lithotrities had been performed without relief, supra-pubic lithotomy was decided upon. Operation apparently successful for first eight days, when vague and indefinite symptoms occurred. Death took place on the fifteenth day following the operation, without any evidence of peritonitis or other complication to account for the lethal exit. At the autopsy a rupture of the anterior wall of the rectum was found. This did not extend into the peritoneal cavity or bladder. There was considerable induration of the recto-vesical region corresponding to the site of the rupture. The rectal bag had been filled with ten and one-half ounces of water and the bladder had been distended with eight and one-half ounces of fluid.

The condition of the rectal wall is worthy of attention. There can be no question concerning the resistance to rupture which the rectal wall offers under normal conditions. But the altered conditions incident to senility, combined with the degenerative change which the surrounding parts are known to undergo in chronic vesical disease, are precisely of a character to favor the occurrence of the accident under consideration. In the case herewith reported

this was strikingly illustrated by the circumstances attending the rupture and the state in which the rectal wall was found, both at the operation and the autopsy. It may likewise be suggested that the particular operative procedure attempted, namely, intraperitoneal cystomy, may have contributed to the occurrence of the accident; the support which the rectal walls receive from intra-abdominal pressure being lessened by the incision in the walls of the abdomen.

There are only two recorded instances of rupture of the rectum, prior to my own, occurring during an attempt to perform suprapubic opening of the bladder. There are several references made to other cases, but these cannot be authenticated. Prof. Keyes, of New York, quotes the case of Nicaise and then remarks that four or five other instances of this accident have occurred in France. It has been impossible to find any other reference to these cases except in the course of some remarks by Anger, in the discussion upon Nicaise's paper, above referred to, and which is reported in connection with the latter. Anger says: "The case of M. Nicaise is the fourth or fifth of the same kind; I have therefore rejected the use of Petersen's balloon." A most thorough and extended search in the library of the Surgeon-General's office, including the proof-sheets of the forthcoming number of the *Index Catalogue* (vol. xi), having proved fruitless, Dr. Fowler concludes that either M. Anger has not been properly reported, or else the cases which he referred to had come to his knowledge through channels other than the ordinary ones of information through publication.

Olive Oil and Gall-Stones.

In a brief paper read before the Medical Society of North Carolina, and published in the *North Carolina Medical Journal*, August, 1890, Dr. Thos. S. Burbank denies the value of giving olive oil with an idea of expelling gall-stones. He says:

The relief given by the administration of large doses of sweet oil in hepatic colic and the subsequent passage of dark green masses led early observers to relegate a specific action to this remedy in causing the expulsion of gall-stones.

At this time the physiological action of remedies was but little known and chemical analysis supplemented by visual observation; therapeutical investigation, in the hands of empiricists, resulted in each remedy having a selective and specific action ascribed; consequently they thought the masses found in dejections after large doses of sweet oil resembling gall-stones were gall-stones. Later investigators, finding these masses after giving the oil, and discovering that the diffusion of fat was accomplished by the bile, that fats were colloidal substances, therefore possessing feeble power of osmosis, that oil would pass through a membrane moistened with bile with great facility, and that the blood of the portal vein was by far richer in fat than the blood of arteries and systemic veins, thought the oil had a selective action for the liver and that the masses were gall-stones.

The chief chemical constituent of human gall-stones is cholesterin, other constituents are the bile pigments, either by themselves or in combination with lime and very small quantities of the bile acids also in combination with lime, their color varies from white to black. Cholesterin crystallizes from gall-stones after solution in boiling alcohol. The chief chemical constituents of the masses are soap and oil, other constituents, bile pigments and very small quantities of cholesterin, their color is dark green. Cholesterin crystallizes from masses by first evaporating to dryness and pulverizing, treating with ether, filtering and evaporating, adding solution of caustic potash, washing on filter with distilled water, drying and again adding ether, evaporating and dissolving in boiling alcohol.

The ease with which we obtain cholesterin from gall-stones and the quantity they contain (70 to 80 per cent.) and the difficulty encountered in obtaining it from the masses, and the quantity they contain (less than 1 per cent.) prove conclusively that the masses are not gall-stones; and the palpation of the abdomen of a patient, with thin walls, who has taken large doses of sweet oil for hepatic colic, reveals gall-stones in gall-bladder.

Orexin.

In regard to orexin, which has been spoken of a number of times recently in the REPORTER, Dr. Ed. Reichmann, in the *Deutsche Medicinische Wochenschrift*, July 31, 1890, reports the results of its use in the form of the chloride, as a stomachic tonic. The drug was administered to thirty-

six patients, in doses of slightly less than four grains, once or twice daily, or of less than eight grains at a single dose, in gelatin capsules or Japanese vegetable paper, followed by liberal quantities of fluid. In five cases, one of chronic exudative pleurisy, one with emphysema and hyperacidity and three with multiple sclerosis, distinct improvement of appetite followed without unpleasant complications. In eleven others: five of phthisis, two with chlorosis, three with dyspepsia without profound structural disease and one with carcinoma of the stomach, the results, though not quite so good were yet satisfactory, as there was a moderate improvement of the appetite. In the remaining twenty cases: seven of phthisis, two of uropoietic tuberculosis, two of carcinoma, four with chronic dyspepsia, two with hypersecretion, one of hypochondriasis, one with empyema and one of phthisis and morphinism, there was no improvement of appetite or but slight and insufficient improvement which soon disappeared, or the results were indefinite. In nine of these only two small doses, in one a single large dose was taken. This last patient vomited immediately after taking the medicine. One patient with empyema complained of nausea which was not aggravated by a second dose. In the other cases the secondary manifestations were slight, consisting in a sensation of burning in the œsophagus or stomach. The patient with hypersecretion complained of pains in the abdomen, probably due to excessive secretion of acid. In six cases, examination of the contents of the stomach was made, after the ingestion of orexin. An increase in the amount of hydrochloric acid was found in most instances.

Development of the Hymen.

In an article in the *Archiv. für Gynæcologie*, abstracted in the *American Journal of the Medical Sciences*, June, 1890, Schæffer has made a careful study of the development of the hymen, based upon the examination of the genitalia in nearly two hundred fetuses. He found that in every instance the hymen, as early as the fifth month, was composed of two lamellæ, the inner being derived from the vagina, the outer from the folding in of the vulva. In many cases the two layers coalesced, but they sometimes remained distinct until birth, though seldom later. The fœtal hymen had on its inner (or upper) surface transverse folds similar to those in the vagina; between the folds small pockets were often formed, from which cysts of the hymen might form. Certain irregularities in the distribution of these folds account for the hymen crenelatus, dentatus, carinatus, falciformis, etc. On the outer surface of the fetal hymen numerous folds were found, which extended from the fossa navicularis, nymphæ, clitoris and meatus. Schæffer summarizes the arguments in favor of the bilamellar origin of the hymen as follows: 1. In over one-fourth of the specimens the lamellæ were clearly demonstrated; 2. The outer lamella was proved to be developed from the folds which radiated from the region of the vestibule; 3. Various stages in the union of the two lamellæ were observed; 4. The outer lamella had the same color and epithelial covering as the vestibule, the inner that of the vaginal mucosa.

Insane Men at Base-ball.

A number of patients from the Friends' Asylum for the Insane in Philadelphia were taken recently to witness a base-ball game. They enjoyed the antics of the players and imagined that they were visiting another institution for incurables. They expressed sympathy for the hallucinations which beset the poor creatures who jumped, danced, ran forward and backward, and slid on the ground so frantically.

Since their visit it is said the patients have much improved, and the Philadelphia *Record* says it may yet come that ball grounds all over the country will have places on the grand stand set apart for this class of visitors, and that those interested in the care and treatment of the insane will take their patients to witness the games as a curative by comparison.

Theine for Neuralgia.

Dr. J. K. Bauduy places great reliance on subcutaneous injections of theine in cases of obstinate neuralgia. In one case of sciatica which had resisted the ordinary medical treatment and galvanism, he obtained a brilliant cure by injecting one-quarter grain of theine and rapidly increasing the dose on successive days to one-half grain. Equally effective was theine when exhibited in a case of supra-orbital neuralgia. Further trial is

recommended. It should be noted that theine is now held by some observers not to be identical with caffeine. — *Druggists' Circular*, September, 1890.

Cevadilla Alkaloids.

Mr. E. Merck has isolated two new bases from cevadilla seeds, and is now engaged in their examination. Both alkaloids are crystallizable and yield crystalline salts. One alkaloid is in white crystals soluble in chloroform and alcohol, but less soluble in ether. The crystals run together at about 230° C., but are only fully melted at about 240° C. The nitrate of the same crystallizes very well, and dissolves only with great difficulty in water and alcohol. The second alkaloid crystallizes from ether in soft needles, which are freely soluble in alcohol and chloroform, but not so easily in ether. Its melting point is 214–215° C. The nitrate of this alkaloid crystallizes well, dissolves fairly easily in water, but only with difficulty in alcohol. Neither of the alkaloids is sternutatory, so that they differ from veratrine, and they are not precipitated by ammonia in the cold, although on heating the ammoniacal solution the free bases are precipitated in an amorphous form. — *Chemist and Druggist*, August 23, 1890.

Local Anæsthesia.

For the purpose of producing local anæsthesia a spray composed of ten parts of chloroform, fifteen parts of sulphuric ether and one part of menthol is very effective. After one minute's application of this spray complete anæsthesia of the skin and neighboring tissues is obtained, which lasts from two to six minutes, and suffices for the performance of such minor operations as opening abscesses of the cervical glands, incising a deeply-seated whitlow, and the excision of an epithelioma of the nose. In all the cases in which Dr. Dobisch, of Zwittau, who recommends this method, employed the spray above mentioned the wounds healed satisfactorily.

Trephining Under Hypnotism.

The *St. Louis Medical and Surgical Journal*, August, 1890, says that Dr. A. B. Shaw trephined a man in that city on May 15, 1890, while the subject was under hypnotic influence. The case was one of traumatic epilepsy, Jacksonian convulsions and hemiplegia existing. Dr. Benno von Steinmetz hypnotized the patient, and the operation was successfully performed before quite a large number of physicians at St. Mary's Infirmary. The operation lasted one hour. Chloroform or ether could not be administered with safety on account of the heart and kidney lesions which existed. This case is one which seems to be unique.

Colorless Iodine.

The *Popular Science News*, July 1, 1890, calls attention to the fact that iodine solution bleached by the addition of ammonia makes a solution of iodide of ammonium possessing none of the characteristic properties of iodine itself. Colorless iodine is said to be in considerable demand; but it contains no active iodine at all, and is evidently the invention of some druggist or physician with more ingenuity than chemical knowledge. The possibility of the formation of the violently explosive iodide of nitrogen is a point of positive danger in its manufacture, to say nothing of its valueless properties as a counter-irritant.

Treatment of Menstrual Colic.

In the griping and colic which precedes or accompanies the menstrual flow in women suffering with dysmenorrhœa, the following will be found serviceable:

℞ Ammonium acetate . . . . . ʒ iss
Morphine hydrochlorate . . . . . gr. i
Syrup of orange peel . . . . . f ʒ ss
Infusion of peppermint, q. s. ad . . . f ʒ iv

M. Sig. From a dessert to a tablespoonful, repeated as often as necessary up to four doses in one hour, or until symptoms of narcosis show themselves. Under violent suffering, morphine is tolerated in much larger doses than can be given under ordinary circumstances.

—*National Druggist*, July 15, 1890.

Woman Hospital Physician in Brussels.

The *Münchener Medicinische Wochenschrift*, July 22, 1890, states that the directors of the city hospitals of Brussels have for the first time elected a female physician. Fräulein Everaert, who passed with distinction the medical examinations at the University of Brussels, has been appointed assistant physician to the hospital St. Jean.

NEWS.

—Dr. James E. Rogers was shot and killed near Alexander, North Carolina, on September 10.

—A case of death from what was diagnosticated as hydrophobia occurred in Philadelphia on September 8.

—Dr. G. Betton Massey has removed his Offices and Sanitarium to 212 South Fifteenth Street, Philadelphia.

—The cholera continues with moderate force in Egypt and in Spain; but the cases are far from numerous enough to make a severe epidemic in either country.

—Dr. John Carson, of Blairsville, Pa., was arrested and taken to Indiana, September 5, where he is charged with infanticide. The woman alleges that by his brutality he killed her child just after it was born.

—It was telegraphed from Berlin, September 12, that Koch claims that he has discovered a method of curing consumption by inoculation and was about to commence experiments on human patients who are suffering from tuberculosis.

—A young woman was bitten at Plainfield, September 11, by a dog. She was taken to the Pasteur Institute in New York, where for fifteen days she will be inoculated three times daily with virus, to counteract that received from the dog. Dr. Gibier declared the dog was in an advanced stage of rabies because its stomach was full of foreign bodies.

—It is reported that Dr. Henry Muirhead, late President of the Glasgow Philosophical Society, has bequeathed the sum of $125,000 for the erection and endowment of a college, which shall be devoted entirely to the instruction of women in medicine, surgery, dentistry, electricity and chemistry. It is said that some of the professional chairs, at least, will be filled by men.

—The Commissioners of Charities and Correction have resolved to investigate the management of the Blackwell's Island Hospital, and a general investigation of the affairs of the penitentiary is not improbable. The Grand Jury made a report on September 12, censuring the officials of Blackwell's Island and condemning their management of the institutions located there.

—Hunger typhus has been raging violently in upper Silesia, despite the earnest protests of the Burgomasters, which were cabled over the world September 9, in the form of a denial. The denials of the Burgomasters are said to have been for the purpose of concealing the terrible poverty that is prevailing. Hundreds of families were almost starving and are threatened with the disease, the real cause of which was the exorbitant price charged for meat and flour.

—The *Daily News*, of Chicago, on September 11 published an affidavit by an exemployé of a slaughtering firm employed by the State Live Stock Board to kill and put into the rendering tank all lumpy-jaw cattle which reached the stock yards. The affiant declares that the employés constantly outwitted the Health Officers and succeeded in smuggling large quantities of the diseased meat out of the house; that it was done by order of the firm, and that the employés were paid extra for it. It seems that the diseased meat was sold in the poorer districts of Chicago.

—The bill to prevent the sale of adulterated or impure milk, which was defeated in the Common Council of Philadelphia, before the summer holidays, was passed September 11 by a vote of seventy-three to sixteen. The ordinance provides that no milk shall be sold in the city of Philadelphia that contains less than twelve per cent. of milk solids, and also provides for a system of inspection and for the punishment of the offenders. The Board of Health has advocated such a measure for years and repeatedly sent communications to Councils urging the necessity of action to prevent impure and adulterated milk being sold in the city.

—At a meeting of the New York State Commission on Lunacy, September 3, the State was divided into insane-asylum districts, in accordance with the provisions of the State Care of Insane act, passed at the last session of the Legislature. The districts proposed are as follows, each comprising from six to ten counties: Utica District, Hudson River District, Middletown District, Willard District, Binghamton District, St. Lawrence District and Buffalo District. Until such time as the State assumes full charge of the insane, the various counties will be required to pay for their own insane at the rate of $4.25 per week for all patients kept in hospital for three years or less, and $2.50 per week for those maintained for any period exceeding three years.

MEDICAL AND SURGICAL REPORTER

No. 1752. PHILADELPHIA, SEPTEMBER 27, 1890. VOL. LXIII.—No. 13.

COMMUNICATIONS.

PULMONARY CONSUMPTION AMONG FIREMEN.

BY THOMAS J. MAYS, M. D.,

PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC.

Much of the attention that has been devoted to the etiology of consumption has been directed to its prevalence among those who are engaged in in-door occupations, or among those who spend their lives in closed institutions, like convents, monasteries, prisons, etc.; but so far as my knowledge extends no interest, or very little, has been taken in investigating the death-rate of this disease among those who follow open-air pursuits. Under the former conditions the mortality of the disease is invariably high, and during the last few years this fact afforded the principal clinical argument in favor of the contagious nature of consumption. That this mode of reasoning is illusive, and that a high death-rate from consumption is also present under opposite circumstances will appear from the following investigation which was undertaken with a view of showing the death-rate of phthisis among those who are engaged in extinguishing fires in our large cities.

In the beginning of last August I sent a circular to each of the fire departments of the principal American cities containing the following questions: Duration of observation? Are any but able-bodied men admitted into your service? Number of deaths from all causes? Number of deaths from consumption? Number of deaths from accidents? Number of deaths from pneumonia, pleurisy, bronchitis, asthma, and from other diseases? Replies were received from Philadelphia, New York, Boston, Chicago, St. Louis, Buffalo, San Francisco, Washington, D. C., Cleveland and Baltimore; and to the various officials who kindly furnished them, and whose names appear in the statistical table on page 358, I desire to return my warmest thanks.

In the aggregate these returns show 434 deaths from all causes, 144, or 31.04 per cent., of which were caused by consumption; 38, or 8.74 per cent., by other diseases of the lungs; 122, or 28.11 per cent., by other diseases than consumption and those of the lungs; and 130, or 29.95 per cent., by accidents. One of the most astonishing disclosures of this investigation is that, in spite of the hazardous nature of the fireman's occupation, his chances to die from pulmonary consumption should be greater than to be killed by accident. This, however, fails to give a correct estimate of the proneness of the fireman to fall a victim to the disease under consideration. For the above statistics show that the older fire departments, as a rule, show the heaviest mortality from consumption, evidently because the special causes which bring about consumption among these people become more active after the first few years' service; hence by deducting the death-rate of the departments of Boston and Washington, neither of which has a recorded observation of more than 18 months, the death-rate from consumption among the other departments rises to 33.73 per cent. of all the causes of death.

But even this does not give a true idea of the fireman's liability to pulmonary diseases; nor, perhaps, of his whole liability to consumption, for it is quite certain that this disease makes a frequent beginning in pneumonia or bronchitis among these men. The total number of deaths from pneumonia are 38, but there is good reason for believing that at least some of these died from consumption. From an inquiry into the length of sickness of those who are reported as having died from pneumonia in the Philadelphia

department I should say that none died of acute pneumonia. But even if this suspicion is not well founded, in any case it still remains a fact that 40 per cent. of the causes of death to which the fireman is liable come through respiratory diseases.

Now the death-rate from consumption among the general adult population is 27.29 per cent. of the total deaths; and when the death-rate from this disease among firemen is compared with this standard the latter would exceed the former only by about six and a half per cent.—a very small difference indeed.

But from the following account it will be made manifest that this estimate falls far short of the true relative mortality of this disease among this class of men. For in reply to the question whether any but able-bodied men are admitted, the departments of Philadelphia, New York, Boston, Chicago, St. Louis, Cleveland and Washington stated *no*, and gave the additional information that every man was compelled to undergo a medical examination. Those of Buffalo, San Francisco and Baltimore answered the question in the same negative way, but said nothing in regard to medical examinations. It is fair to presume, however, that since the custom of medical examinations is so general in other cities, the men of the latter also receive medical inspection before admission.

In some of the cities the applicant must,

TABLE OF THE MORTALITY RETURNS FROM THE FIRE DEPARTMENTS OF TEN AMERICAN CITIES

Name of Fire Department.	Duration of Observation.*		Number of Deaths from							Total Number of Deaths.	Percentage of Deaths from Consumption.	Name of Observer.
	Number of Years.	Dates.	Pulmonary Consumption.	Pneumonia.	Bronchitis.	Asthma.	Pleurisy.	Other Diseases.	Accidents.			
Philadelphia .	19	1871 to 1890	33	3	0	1	0	21	25	83	39.75	John T. Watson, Clerk.
New York . . .	15	1865 to 1890	60	18	0	0	3	56	58	195	30.76	Thomas H. Bonner, Chief.
Boston	1½	Dec. 26, 1887 to July 11, 1889	2	1	0	0	0	13	5	21	9.52	L. P. Webber, Chief.
Chicago	5	1884 to 1889	4	1	1	0	0	8	10	24	16.66	D. J. Smuice, Marshal.
St. Louis . . .	5	1885 to 1890	9	0	0	0	0	8	8	25	36.00	John Lindsay, Chief.
Buffalo	10	1880 to 1890	5	0	0	0	0	2	5	12	41.66	E. O. Van Broise, Secretary.
San Francisco .	4	1886 to 1890	9	4	1	2	0	5	2	23	39.19	David Scannell, Chief.
Cleveland . . .	3	1887 to 1890	1	0	0	0	0	2	2	5	20.00	Dr. T. L. Travis, Surgeon.
Baltimore . . .	15	1874 to 1889	21	3	0	0	0	7	15	46	45.86	John H. Hennick, Chief.
Washington, D. C.	1	1889 to 1890	0	0	0	0	0	0	0	0		Dr. S. A. McKim, Surgeon.

* This implies the time during which health records were preserved of the departments.

under oath, declare whether he has any pernicious habits and whether any near relatives are, or have been, "afflicted with consumption, raising of blood, or with pulmonary or scrofulous disease;" and the medical examinations are so rigid that nearly half of those who apply are rejected. Now from all this it becomes very evident that the firemen at the time of entrance differ very much from the general population in so far as soundness of body is concerned. The former are a healthy, selected class of men, while the latter are a promiscuous group amidst whom are found all kinds of diseases. Indeed, from all I can learn, it appears that the test to which firemen are subjected is no less severe than that which is applied to life-insurance risks, and that these two classes of men therefore occupy very much the same vantage ground in relation to health at the beginning of their respective careers. Let us then compare the mortality from consumption of the one with the other.

According to the Mutual Life Insurance Company of New York (*Mortuary Experience of the Mutual Life Insurance Company of New York from 1843 to 1874*, published 1875, p. 12), consumption caused 17.61 per cent. of the total mortality of 5,224 insured lives, showing that this falls short 16.12 per cent. of the firemen's death-rate from this disease. Now the average mortality from consumption among the general population between the ages of 20 and 70, as founded on the statistics of a number of large American cities, is 27.29 per cent., which exceeds the death-rate among the insured 9.68 per cent. Basing our estimates on the mortality of insured lives, we add 9.68 per cent. to 16.12 per cent., and this product, 25.80 per cent., represents the liability of the firemen to consumption over and above that of the general population. If we now add the latter to the death-rate of the general population we get 53.09 per cent., which represents the relative death-rate of firemen from consumption. In other words, if the whole adult population were turned into firemen 53.09 per cent. of all their deaths would be caused by consumption.

A little more than a year ago Dr. George Cornet, of Berlin, investigated the death-rate from consumption among the nursing members of the Catholic convents and monasteries in Prussia, and found that this disease causes 62.88 per cent. of all their deaths (*Zeitschrift für Hygiene*, vol. vi, p. 65). Ever since these results were published they have been regarded as incontrovertible proof of the contagiousness of consumption, since it appears that these nurses are largely engaged in caring for those who are afflicted with this disease. That this conclusion is entirely unwarranted is apparent from the following considerations: (1) The investigation disclosed nothing new; for almost five years before it had been shown by Baer (*Ueber das Vorkommen von Phthisis in den Gefängnissen*, 1884) that the death-rate from consumption ranged from 64 to 90.9 per cent. in closed institutions, that is, among the inmates of German prisons. (2) Notwithstanding Dr. Baer's statistics, Dr. Cornet's paper would be a valuable contribution to medicine if he had made a comparative examination of the death-rate of the inmates of these institutions who nurse, and of those who teach. By this he would have demonstrated whether those exposed (nurses) are more liable to this disease than those not so exposed (teachers). This would probably have required but little more work, and it is very much to be regretted that it was not attempted. (3) A point which militates forcibly against the idea that consumption is communicated through personal contact in closed institutions is also brought out by Dr. Baer's statistics. For he shows that prisoners who suffer solitary confinement are more vulnerable to the disease by 20 per cent. than those who are allowed to associate with each other.

Now when this evidence is connected with that which developed itself in this investigation, the whole points very strongly to the non-contagious nature of pulmonary consumption. In other words, it leads one to conclude that the origin and existence of this disease is not dependent on being communicated from the consumptive to the well. It is true that the relative death-rate among firemen is only 53.09 per cent.; and therefore 9.79 per cent. less than that among the nurses in convents and in monasteries, who are believed by Dr. Cornet to have contracted the disease from those whom they were nursing, yet this death-rate of the firemen has a far greater significance than appears on the surface. Here we have a class of men who are not confined to sunless and poorly ventilated buildings, who spend probably two-thirds of the twenty-four hours in the open air, who do not come in contact with tubercle bacilli, or the expectoration of consumptives, except by chance; and who, irrespective of their occupation, are not sur-

rounded by any special prejudicial influence to their health; and yet in spite of all these conditions; even after, so far as this is possible, all the personal and family factors which are known to induce the disease are eliminated, consumption still causes one-third of their deaths; and when this death-rate is compared with that of the general population it rises to more than fifty per cent.—truly a most frightful mortality from a single disease under such circumstances.

Now what is the cause of the large number of deaths from consumption among firemen? In answering this question I think it may be stated without hesitation, that, if one thing is more true than another, it is that consumption cannot possibly be dependent on a single specific cause. He who carefully watches the different steps in its development must feel that it arises only when and where the bodily energies are sapped and exhausted, regardless of the absence or presence of exposure to a specific germ. Hence any cause which is capable of destroying the vigor and vitality of the body is also a potential cause of pulmonary consumption. So far as I am able to judge, there is no class of men who are more open to enervating and depressing physical influences, or who suffer greater deprivations of rest and sleep than the firemen of our large cities. Liable to be called out at any time, their life is in great part one of perpetual excitement. The sudden transition from a warm room to active duty on a cold winter's night—sometimes the urgency being so great that they are compelled to finish their toilet *en route* to a fire; the daring, the excessive and almost superhuman exertion demanded in battling with the flames; the extreme oscillations of temperature to which their bodies are subjected—bathed in perspiration at one moment and drenched and chilled by an icy stream of water the next; the necessity during emergencies of wearing and even sleeping in wet clothing from one fire to another, are burdens which no human constitution can long successfully withstand, and are unquestionably some of the most prominent causes which undermine the health of these self-sacrificing men and make them so vulnerable to the disease under consideration.

—The cholera bacillus is now claimed to be destroyed in the healthy stomach before it gets a chance at propagation in the intestines.

THE USE OF RHUS TOXICODENDRON.[1]

BY JOHN AULDE, M. D.,
PHILADELPHIA, PA.

Rhus toxicodendron is a remedy of great practical utility in the treatment of many grave diseases, and, although it has been before the medical profession for nearly a century, it has not been very largely employed by regular physicians. It is a drug whose peculiar action is not well understood, the effects being so marked from the use of comparatively small doses that many physicians regard the reports following its exhibition as incredible. It is also a remedy claimed as the special property of medical practitioners who style themselves homœopaths, and is regarded by them as supplying one of the best illustrations of the truth of their dogma, "*Similia similibus curantur.*" The objects to be attained in the study of this drug may be summarized as follows: A better understanding of the therapeutical indications for its employment and a theory to account for the results obtained as contrasted with the theory of *similia*.

I have published two papers upon rhus toxicodendron, the first being a short letter in the *Medical News*, April 20, 1889, in which I recorded a number of cases successfully treated by the exhibition of rhus; the second was a report of a collective investigation in the *Therapeutic Gazette*, October, 1889. I have used this remedy for several years past, and quite a number of others have used it at my suggestion in the treatment of different diseases, but I have never claimed the original discovery of the valuable properties of the drug. In my first-published paper, I referred to its use in 1798, eight years before Samuel Hahnemann invented the name of homœopathy, and mentioned also that it was official in the British Pharmacopœia in 1836; but I was not then aware that it had been studied by Piffard, of New York. Since the publication of these papers I have received communications from gentlemen who have used it for other than rheumatic affections, for which I especially recommended it. The only claim I put forward is, that through my influence its value has been brought to

[1] Read before the Montgomery County, Pennsylvania, Medical Society, September 24, 1890.

the attention of quite a number of physicians, and at the same time new uses have been found for it.

The principle upon which minute doses of medicines act seem to me to be best explained by what may be called Cellular Therapy. I have in previous publications foreshadowed my views on this topic, but only recently have these ideas been sufficiently crystallized to warrant their presentation to the profession in compact form. These notions have been somewhat faintly outlined in discussing "Small Doses" (MEDICAL AND SURGICAL REPORTER, December 3, 1887, June 30, 1888, and July 28, 1888), a little over two years ago. The last two papers were devoted to a discussion of the therapeutic considerations connected with the administration of small doses, and included some remarks upon electricity, nux vomica and nitroglycerin. From the last of these I quote the following: "A few words should be added here as to the value of these generalizations and the bearing which they may have in the elucidation of the theory of the actual value of small doses in the treatment of disease. As to strychnine, for example, its value is well recognized, but the method by which we arrive at results is not so well understood, the deductions of experimental physiologists being somewhat contradictory and misleading. Its applications (effects), are accounted for on the basis of its physio-pathological action or, to be more plain, its physiological action in the presence of pathological changes involving, we may presume, certain modifications of the cell-action. Whether the tissues are normal or abnormal, we always have to do with cell-action, and when a medicament is added we have, as a resultant, the cell-action and the drug-action; and we may assume that when the latter is properly applied, the drug-action is in the nature of a complementary action to that of the cell. It is certainly not 'substitutive action,' nor does the expression, 'elective action,' sufficiently cover the ground; while in the light of these investigations, both homœopathy and dosimetry are altogether irrelevant expressions."

Going farther than this, we see that the pathological changes following the exhibition of lethal doses may be interpreted from a therapeutical standpoint, as in the case of mercuric bichloride, rhus toxicodendron and arsenite of copper, all of which are known to be exceptionally active poisons. Large doses of the bichloride, acting upon the cells of the intestinal mucous membrane as an irritant (stimulant), set up inflammatory processes, which so closely resemble the pathological changes occurring in diphtheria, that no difference between the two can be distinguished under the microscope. It is reasonable, therefore, to assume that the bichloride may be used with proper caution in the case of pathological changes affecting mucous structures, because of its known stimulant action upon the cells affected. The absorption of poisonous products in this case is prevented by the increased resistance of the cells upon the same principle as the normal cells prevent the absorption of the poisons naturally occurring in the intestinal tract even in health. The medicament merely increases the resistance of the organism by fortifying and strengthening the normal functions of the affected cells. The danger to be apprehended from the use of this remedy is ptyalism; but, in addition, there are dangers which may properly be classed as intermediate. For example, the amount and frequency of the dose may lead to the disorganization of the cells, when they are no longer capable of acting in the capacity of scavengers, and, although nature is conservative, disease gains the upper hand. The minimum dose, repeated at short intervals, is therefore of prime necessity, as by this method the cells are constantly bathed in a fluid charged with the medicament, while over-stimulation and the consequent destruction or arrest of the cell-function are avoided.

In the case of rhus, instead of the buccal mucous membrane bearing the brunt of lethal doses, its effects are shown in the form of marked inflammatory changes in the integument, an illustration of the remote action of the drug. The direct action is upon the cells of the intestinal tract, the remote effect being manifested in the subsequent hyperemia and retrograde changes taking place in the cells of the integument. These effects have been referred to as the specific action of the drug, and it is the toxicological effect of such action that we wish to avoid in the treatment of disease. The knowledge thus acquired, while valuable from a toxicological point of view, it will readily be seen, is not of equal value as a lesson in therapeutics, unless rightly interpreted.

In the case of arsenite of copper, we have a most fitting illustration of cell-activity in

the treatment of various disorders of the intestinal tract. It is closely related chemically to Paris green, and as a therapeutic agent is destined to occupy an important position in the medicine of the future. The exhibition of minute doses is attended with marvellous results, in all cases and at all seasons of the year, in every climate. That it is antiseptic cannot for a moment be doubted, but it is also an important alterative, producing effects through influences which, except upon the basis of cellular therapy, we are unable to understand or explain. Without any undue stretch of the imagination, catalytic properties may be ascribed to it, as through its administration a series of changes are started which sooner or later manifest themselves by effects which are more or less perceptible.

In the treatment of typhoid fever, I have found it superior to any and all other remedies, when used solely with a view to maintain a healthy condition of the intestinal canal, and the only scientific basis which can be offered for this beneficent action rests upon the theory of cellular therapy. My ideas on this subject have been confirmed by the opinion of Prof. Dr. Hugo Schultz, of Greifswald, Germany, my friend and translator, who has arrived independently at a similar conclusion. In the course of a private communication he says, "It is out of the question to suppose the cupric arsenite exerts any germicidal influence when given in the doses you advise. The beneficial action of the drug, however, goes far to prove the possibility of a 'cellular therapy,' with the necessary consequence of a pre-existing cellular pathological condition."

It will be evident, therefore, to the most superficial observer, that cellular therapy is entitled to more than a passing notice, and I have confidence that it will ultimately occupy an important place in completing the chain of evidence which shall advance the art of medicine until it occupies a position on a level with surgery, as seen in the last decade of the nineteenth century.

In concluding my reference to the subject of cellular therapy, I will anticipate some objections which may be offered. It may be asked why these cells are thus affected by different medicaments, and why certain drugs are indicated in particular diseases. These questions cannot be answered. The physiologist cannot tell why a ray of light impinging upon the retina produces a mental picture on the brain, nor explain the process by which sound is conveyed to the brain; and the therapeutist meets also obstacles when he tries to explain the action of drugs. The entire science of physiology is erected upon the function of the cell as a basis, and this remains one of the most profound secrets of nature. Disease, in its incipiency, is a derangement of function beginning with the cell; all medicines, as a rule, are poisons, and as such produce or develop effects in the nature of force when introduced into the economy. The aim of the physician is to determine the range and extent of that power, and at the same time to locate as nearly as possible the particular cells which are modified, and the manner in which they are affected by this force.

Pharmacology.—The pharmacology of any drug includes a study of its physiological as well as its toxicological effects, given in small, medium and lethal doses. In order to obtain a correct knowledge of the properties of rhus toxicodendron, I may mention some points connected with its preparation, which belongs to the department of pharmacy. Many valuable medicines are ruined in the course of preparation, and unfortunately rhus toxicodendron forms no exception to this rule.

The only reliable form of preparation is the tincture made from the fresh leaves, which should be gathered during the period of efflorescence. It is said that, as far as practicable, the leaves should be selected from among plants growing in the shade; in case this is found impracticable, they may be gathered before the sun strikes them in the early morning. The tincture is made according to the directions of the *U. S. Pharmacopœia* for the manufacture of fresh herb tinctures—fifty parts of the drug to one hundred parts of alcohol; after thorough maceration, the liquid is allowed to stand for the period of fourteen days, when it is subjected to percolation, and is then ready for use. The active principle, toxicodendric acid, is an exceedingly volatile substance, and it is reasonable to suppose that preparations made from the dried leaves are practically inert. My observations with fluid extracts prepared in this manner warrant the statement that they are not reliable; and I therefore desire to emphasize the need for procuring a reliable product. Dr. J. W. Keath, of Schaefferstown, Pa., wrote me some time ago that he had used rhus in all the classes of cases in which I had recom-

mended it, in both large and small doses, and had failed absolutely to notice any effect whatever. I at once made arrangements to have him supplied with a reliable product, and the treatment was repeated with the result that not a single failure occurred.

The dose of the tincture ordinarily should not exceed one-half drop three times daily; if the diagnosis is correct, and the results are unsatisfactory, the dose should be diminished. For convenience the tincture may be prepared in the strength of one part of the tincture to nine parts of diluted alcohol. Each five drops of this solution carries just one-half drop of the medicine. In patients who are susceptible to the action of the crude drug, that is, those easily poisoned, it will be advisable to begin treatment with a single drop of the ten per cent. solution, which may be diluted with a little water and taken three times daily. In typhoid fever, the dose should be even smaller, but more frequent repetition is necessary.

As some present may have doubts concerning the possibility of so small a dose having any appreciable effect, I call your attention to some tablet triturates, each containing one one-hundredth of a drop of the tincture, and if you have the temerity to investigate the matter *in propriâ personâ*, take one of these tablets and allow it to dissolve in the mouth. There is no evidence superior to that afforded by one's own senses, and at the close of my paper we shall be glad to hear the results of the experiment.

Lethal doses are best antagonized by the exhibition of some preparation of lead, and you all know that lead water and laudanum are the standard remedies in the case of rhus poisoning. As an external remedy, no combination is superior to ordinary white-wash; it should be applied freely with a brush, and the patient instructed to avoid carrying the poison from one part of the body to another through the medium of the hands. To allay the irritation set up in the digestive tract, olive oil or some other bland oil may be freely swallowed.

Absorption takes place very rapidly, whether rhus toxicodendron is applied locally or taken internally, but it is said that cautiously chewing the twigs of rhus renders the person proof against poisoning from contact with the shrub. Elimination is effected through the usual channels, the effects being most marked in the skin and upon the urinary tract.

The general action, when taken in medicinal doses is that of a stimulant, acting upon the cerebral centres, as any of you may learn from taking the minute dose suggested. From small medicinal doses, I have never noticed any appreciable narcotic effect, although no doubt large dosage will show that it has decided narcotic properties. Dr. George Kirkpatrick, of La Harpe, Illinois, wrote me some time ago that he took by mistake a swallow of the tincture, and almost immediately afterwards, he took ten grains of sodium carbonate and a quantity of oil, and felt no bad effects until the second day, when he noticed that the scarf-skin was all peeling off. He suffered no serious inconvenience, however, from the accident. The form, manner and time of taking, are important factors in producing therapeutic effects. While in the case of chronic rheumatic affections half-drop doses three times daily are quite sufficient, typhoid fever and erysipelas require smaller doses given at more frequent intervals, at least as often as every hour during the day. The mixing of the plain tincture with water is contra-indicated, as a considerable portion of the active principle is thus destroyed; by using it in the form of a solution with diluted alcohol as suggested, this objection is removed, and each dose may be combined with a teaspoonful of water without injury, if not allowed to stand exposed too long.

The action of rhus upon the nervous system is somewhat peculiar; as, although it is not a narcotic in the proper sense, it possesses the property of allaying the irritability of the sensory nerves. This is shown in a very distinct manner in the case of chronic rheumatic affections, where the pain will be arrested sometimes in the course of a few hours. My impression is, that the effect in these cases furnishes an illustration of the influence of the cell-action. In sciatica, for example, the nerve-cells are bathed in a fluid containing the rheumatic poison, which is manifested by the sensation of pain; but as soon as the circulating fluid becomes charged with the active principle of rhus, elimination begins, and at the same time more or less stimulant action takes place in the cells affected, the result being that the pain ceases. The demonstration here offered finds an apparent counterpart when the eye becomes tired from gazing at some particular color, but as soon as an acceptable shade is presented to it a comfortable sensation of rest is experienced. For a long time it was be-

lieved that nothing but opium or some of its preparations were serviceable in this class of cases; lately, however, the analgesic properties of synthetic products have been discovered, and with the light furnished by the cell doctrine, the way is clear to the discovery of other drugs possessing certain peculiar properties. We shall then be in a position to understand the claims of the homœopaths in regard to the harmlessness of their medicines even when taken in large quantities, providing it is not the particular remedy which meets the inroads of the disease.

The effect of medicinal doses of rhus upon the circulation, the temperature and respiration is not marked. Upon the muscular system, during the progress of rheumatic changes, the effect is very manifest; but this action is undoubtedly through the mechanism of the nerve-cells. Thus, when a nerve-trunk is stimulated (irritated) by some foreign substance, electricity, strychnine, strophanthus, or even by a blow, its power over the muscle is arrested and, as has been pointed out by Poole, the muscle supplied by the nerve exercises its inherent property and contracts. In the case of lumbago, we are warranted in assuming that the pain may be due to a combination of circumstances brought about originally through the arrest of tissue-change, by which the blood is charged with a poison that suspends the function of the nerve-cells. As a consequence of this arrest of function there is increased muscular tension, manifested by pain on motion. It is in these cases that we have the practical illustration of the stimulant properties of rhus exhibited, by which the cell-function is promptly restored. The true explanation of this "cure" is not to be credited to homœopathy, but to antipathy.

In the early history of the use of rhus toxicodendron, it was recommended for the relief of paralysis; but it will be apparent from the foregoing that it does not correspond with strychnine in the treatment of this class of cases. The special forms of paralysis which it relieves are caused to disappear solely through the stimulant action upon the nerve-cells, and it is necessary to exercise care in the selection of cases for treatment with rhus toxicodendron.

Upon digestion the effect of rhus is most remarkable; and, from my experience with it in the treatment of disorders accompanied by derangements of the digestive functions, I am inclined to regard it as possessing properties allied to that of an antiseptic. It certainly has a decided detergent effect upon the blood, and persons taking it for the relief of rheumatic affections seem to experience marked improvement in digestion, the secretions being perceptibly increased. When introduced into the stomach, the eliminant action upon the cutaneous system is very noticeable. In the course of a few days, the complexion begins to show favorable changes, and with increased activity of the cutaneous envelope there is a correspondingly increased cerebral activity. I recall a case in which it was used for its influence upon the genito-urinary tract, when indigestion was a prominent symptom, with indications of approaching melancholia. Half-drop doses of the tincture, three times daily, changed the whole character of the disorder, and at the end of a week, indigestion, urethral irritation and melancholia had disappeared.

Therapeutical Applications.—A study of the physiological actions and the toxicological effects of a drug naturally indicates its therapeutical applications; and after what has been said of rhus toxicodendron, little need be added in pointing out the indications for its employment. I have already referred to an apparent antiseptic and alterative action which rhus seems to possess, especially in the case of rheumatic and intestinal disorders, and I desire to call your especial attention to its value in the treatment of all forms of chronic rheumatic affections. The only instances in which I have failed to obtain good results were those when the patients had become debilitated from insufficient or inappropriate food supply, and in the case of acute attacks engrafted upon a chronic disorder. The physician is frequently confronted with cases of rheumatic joint-affections, sciatica, pains in the shoulder, the ankle-joint, the ball of the foot, etc., where other medication has proved disappointing. In many of these cases rhus will prove effective, often relieving the pain within a day or two, and effecting a permanent cure. In wry-neck due to exposure, and in lumbago rhus will prove very valuable. Hemorrhoids, varicose veins and chronic cystitis are usually promptly relieved by the exhibition of this drug. Occasionally the close observer will be disposed to regard some local disturbance, such as ear-ache, sore throat, pain in the bladder or rectum, as one of the manifestations of a rheumatic tendency; and it will be found

on trial that rhus is not alone palliative, but produces permanent recovery. It is often of signal value in relieving paralyses accompanied by a rheumatic history, and, while I am not prepared to say that rhus would not be useful in the absence of the latter, I am disposed to regard the presence of this neurosis—including, of course, gouty and lithemic conditions—as the special indication for the employment of rhus.

In the treatment of erysipelas small doses seem to arrest the tendency of the eruption to spread while the fierce character of the inflammation is subdued and the temperature and pulse fall.

Rheumatic and gouty or lithemic tendencies are liable to manifest themselves during the progress of other diseases, acute and chronic. In typhoid fever, especially where it assumes the lingering form and is accompanied by what appear to be neuralgic pains, the exhibition of rhus will often cause these pains to disappear, and will produce a marked change in the course of the disease. I may add that this remedy will prove of great service in the treatment of some of the more common sequelæ of this disease, such as paralysis or sciatica and other pains of a neuralgic character, together with the usual depression of the organs of special sense.

In conclusion, I have but a word to offer relating to the use of rhus in the treatment of skin diseases. The chronic varieties respond most readily to this drug, and especially the scaly forms; but it is useful in all cases dependent upon an unhealthy condition of the digestive tract. As many of these affections are to a great extent due to the ingestion of improper food—too much starchy and saccharine material being eaten—it will be sufficient to say that these substances must be prohibited during the period of treatment, or but little benefit can be expected.

1910 Arch Street, Philadelphia.

INSOMNIA.

BY LUCIA REDDING THOMPSON,

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The latter half of the nineteenth century is characterized by a struggle for precedence, and with this ever increasing mental strain upon American men and women it is not surprising that we hear more and more of the widespread prevalence of insomnia, the etiology of which deserves the careful consideration of physicians.

We are, in many cases, unable to determine the causes of sleeplessness, since we do not know the cause of sleep. It is a cyclical event, the salient feature of which is the cessation of the automatic activity of the brain; it is the diastole of the central beat. The sleeping brain, in many respects, resembles a quiescent but still living ventricle. Both are at rest; both may be awakened by a stimulus, just as a single prick will awaken a ventricle which has been motionless; so a loud noise will awaken a man from sleep into a long day of wakefulness. We are not at present in a condition to trace out the events which culminate in this inactivity of the cerebral structures; nor can we make dogmatic statements concerning the nature of the molecular changes which determine this rhythmic rise and fall of cerebral irritability.

It has been said that during sleep the brain is anemic. If we admit this, can we consider it a subsidiary event, rather than a primary cause?

The fact that the products of protoplasmic activity obstruct such activity has suggested the idea that the presence of the products of nervous metabolism is the cause of sleep. If this accumulation were the cause, why should we ever have the hope of waking? This alternation of sleeping and waking or the ancient sequence of nights and days, is but a manifestation of all bodily periodicity. Within the day we have the constantly separated cycle of the cardiac shuttle, which must keep at its work, throughout the whole web of the body's life, and cease only at death.

Insomnia may be looked upon as a symptom, directing our attention to some condition which may shade off into disease. It is frequently a premonitory symptom of organic mental disease, which is not relieved by removal of its cause.

It is seen in those who have experienced excessive bodily fatigue. Persistent sleeplessness seen in *mania à potu*, and in those struggling against the opium habit, is familiar. The excessive use of coffee, tea and tobacco must be numbered among the numerous etiological factors of insomnia.

The treatment of insomnia is a matter of difficulty. Let us suppose that care and anxiety has been the cause; the removal of such cares becomes a difficult problem to

the physician. If due to that excessive exercise of emotions, or that condition characterized by a partial or complete suspension of all inhibitory influences—hysteria—its treatment becomes a still more difficult problem. The routine treatment is familiar, but he is a wise physician who abandons all thought of routine treatment and devotes himself to careful consideration of the various points in each case.

Accepting the idea that this functional inactivity is favored by a condition of anemia, we should diminish the circulation in the brain as much as possible, by directing the blood to the less noble organs of the abdomen. Warmth to the abdomen favors dilatation of those arteries which supply the intestinal tract, and consequent cerebral anemia. A large poultice, or a wet compress, consisting of linen or flannel wrung out of warm or hot water covered with oiled-silk, with a dry flannel placed above it, is useful. Warmth to interior of stomach has a similar action. Thus a glass of warm milk is favorable to sleep. The fact that this condition is unknown among savage races should serve as an important indication. This condition is so frequently seen in those who spend their lives in continual excitement: first to attain a happiness never found; then to escape a misery but too surely found. Thus moral measures may become more efficacious than all the remedies of the pharmacopœia. All constitutional conditions such as dyspnœa, cough, pain, palpitation should be relieved by appropriate treatment. Massage and electricity intelligently used are of service. Narcotics should not be used. The idea of relieving pain has descended to us from Hippocrates; to secure the desired sleep we think at once of a hypnotic or narcotic. We should never forget the long train of evils which may follow; the possibility of the formation of a habit which may render our patient a physical and moral wreck. These powerful drugs should be reserved for those in whom insomnia is secondary to pain, cough, etc., while we choose rather moral, hygienic, dietetic and physical measures.

—The northernmost pharmacy in the world, compared to which those in Iceland are situated in summer seas, has temporarily ceased to exist. It was the Apotheke at Hammerfest, the Norway town on the Arctic Sea, and the fire which consumed that town last month consumed it.

ACCIDENTALLY AMPUTATED FINGER RESTORED.

BY J. M. ANDERS, M. D.,

PROFESSOR OF HYGIENE AND CLINICAL MEDICINE, MEDICO-CHIRURGICAL COLLEGE, PHILADELPHIA.

On April 9 I was called to see a girl, four years old, whose mother informed me that the child's forefinger had been jammed between two heavy doors while one of them was being violently closed by an older sister. This accident resulted in severing the finger at a point on the distal side of and near to the last inter-phalangeal articulation. When I arrived, one hour and ten minutes after the time of the occurrence of the accident, I found the bone (the last phalanx) protruding about one-quarter inch beyond the soft parts, though looking well and its continuity unbroken. The separated end, consisting of soft structures and the nail, had been preserved, with the nail—root and all—*in situ*. It had been considerably contused, though retaining nearly its normal form, and it was quite cool. Although it was a great question whether union should be obtained if the missing end of the finger were replaced, I at once decided to make the attempt. It was placed in a warm bichloride solution, strength, 1 in 2,000, for a few minutes, and then carefully adjusted to the finger from which it had been severed, applying simply two pieces of adhesive plaster to keep it in position. Iodoform, bicoloride gauze, a straight splint for the whole hand and a roller bandage completed the dressing. At the end of four days the dressing was removed, excepting the narrow strips of plaster, which were allowed to remain for the reasons that there was no pus visible and the tip looked quite as well as it did when it had been replaced. The same dressing was re-applied and the whole was left undisturbed for ten days. On April 15 the entire dressing was removed and, to my surprise, primary adhesion, though perhaps feeble, had taken place everywhere, excepting for about one-half of the width of the finger on its palmar aspect and towards the inner side, where there was found a small amount of pus, preventing union. The dressing was now renewed daily, the fragments becoming gradually firmly united. At the seat of abscess a little pus continued to form for about three weeks, healing of the wound here taking place by granulation, to the depth of not more than one-eighth inch, however.

While the reparative process was going on, the nail continued its normal rate of growth, apparently, and in the most natural direction. At the end of four weeks or about the time union was completed, there occurred an exfoliation of a dense, almost horny, layer of about the thickness of true derm, over that portion of the finger end lying just beyond the point corresponding to the seat of the small abscess. This occurred twice, and, to my mind, served to show that the extremity of the tip in this vicinity had not been well enough supplied with nutrient material, owing to delayed union at the point mentioned above. As was to be expected, this peeling off gave the finger tip a somewhat shrunken appearance over the same area. On the whole the result was highly satisfactory.

The favorable termination in this case serves to point out how great the physiological activity of the healthy child's tissues, on the one hand, and the all-important fact that the surgeon should boldly attempt to save all damaged structures, especially among children, on the other hand. My chief reason for reporting this case is that I had observed on several occasions fingers sacrificed, on account of similar injuries, by most excellent surgeons.

1637 North Broad Street.

HOSPITAL NOTES.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.

SERVICE OF DR. ROBERT W. TAYLOR.

Lupus Erythematosus.

The first patient, who was a single woman, twenty-four years old, having a family history which was negative as regarded tuberculosis, cancer, syphilis and scrofula, presented herself with a lesion on the face, which she said was first noticed about three years ago as a small pimple near the middle of the nose. It had spread symmetrically over the cheeks down to the mouth, involving both lips, and upwards to the root of the nose. It had also spread to the zygoma on each side, and was then on the point of spreading to the forehead. Its outline therefore resembled that of a butterfly or a bat. Although the disease had produced great disfigurement of the face, she had not placed herself under medical treatment until about one year ago. Syphilis being excluded in this case, Dr. Taylor said there was only one other condition answering this description, and that was lupus erythematosus. The name "lupus" was a fanciful one; but in view of the great ravages of the disease in this case, the term "wolf" did not seem very inappropriate, and it had been so long used in dermatology, that it seemed necessary to retain it. The course of the disease over the face was marked by a delicately thin, glossy, pinkish cicatricial tissue; and the atrophic changes caused by the disease were shown in the marked thinning of the alæ nasæ, and the stenosis of the nasal apertures. The disease still lingered in its active condition about the nasal sulcus and upon the cheeks. A better picture of the disease could hardly be presented, except it were one of much shorter duration. Lupus also occurred, although much less frequently, upon the hands and arms, and it might consist of one patch, or of several. The disease began as a hyperemia with cell changes about the subaceous follicles, causing disc-shaped tubercular patches which, on close examination, showed the subaceous follicles plugged up with epithelial débris and fat cells. The books laid much stress upon this "plugged follicle symptom;" but, as a matter of fact, it was not always present. The patches subsequently underwent atrophy; and in the present case, it was quite difficult to say how much was due to the natural involution of the disease, and how much to treatment. The treatment involved the use of more or less destructive applications. Sometimes the margins of the patches were scarified, as had been done in this case, and it was good treatment. But the lecturer recommended that this patient be treated by the application first of pure carbolic acid, and then of collodion, except for the parts near the angle of the eye, where collodion would be much too binding. In this locality, after removing the scales, paint the part with liquor potassæ, and then apply equal parts of zinc and mercurial ointments. The persistent use of these applications for a considerable time, would in all probability bring about a cure. Many observers, particularly in the past, had claimed that lupus erythematosus was a diathetic disease, and was the offspring of scrofula; but there was no clinical evidence to support this view. Of course, if any

underlying dyscrasia were detected, it should be treated on general principles.

Syphiloderm and Pediculosis.

Another man, who gave a clear history of syphilis, presented himself on account of a general itching eruption on the body, with ulcerations on the thighs, which had first been noticed about four weeks before. On one side of the thorax was an infiltrated patch which had undergone involution in the centre, leaving a cicatricial and pigmented patch surrounded by a constantly increasing zone of infiltration. It was an anomalous form of syphilitic infiltration. On the other side of the thorax was an ecthymatous ulcerated patch, and another ulcerated surface on the right thigh. In addition to these lesions, there were found all over the body and limbs, numerous papules, irregular in size and distribution, and often covered with blood crusts. This eruption made it evident that the itching of which the patient complained was independent of the syphilitic lesions already described, and was due to pediculosis corporis. Such a coincidence might easily mislead an inexperienced observer in making a diagnosis in a case where the syphilitic lesions were not easily recognized. Especially might this occur after the pediculosis had lasted for some time, for prolonged scratching caused the papules to become larger and the skin darker from a deposit of pigment. It was important also to clearly differentiate this eruption from scabies. Scabies spread up the arm and down on to the body to the buttocks, sparing the back; but in pediculosis the eruption followed the habitat of the insect, *i. e.*, occupying the shoulders and sides of the body where the clothes were directly in contact with the skin.

In pediculosis, the insect kept to the clothes; hence, a hot bath and clean clothes would effect a cure of this part of the case. The ulcerated spots already referred to were indicative of a low grade of inflammation occurring in an old syphilitic subject, probably as the result of the irritation caused by scratching. The treatment, therefore, should be directed towards eradicating the syphilitic virus from the system, and to that end, the patient should receive a course of mercurial inunctions, and about fifteen grains of iodide of potassium with citrate of iron and quinine three times a day, gradually increasing the dose of mercury and iodide until the syphilitic diathesis was cured.

Acne Rosacea.

The attention of the class was then directed to the case of a man, twenty-seven years old, who stated that he had been a pretty constant drinker of beer, and that about nineteen months ago he had had "seventeen chancres on the penis." Three years ago, some smooth red blotches formed on the face, and during the last six weeks they had developed numerous warty excrescences. Dr. Taylor said that the "chancres" the patient spoke of, were either soft chancres, or more probably herpetic vesicles; and the eruption which developed on the nose, was rosacea. This disease usually began as a pinkish blush of the skin, with an increase of the subcutaneous tissue and a hyperemia of the sebaceous follicles, resulting in some thickening of the skin and an extremely patulous condition of the mouths of these follicles—sometimes large enough to admit the insertion of a pin. After the skin had become more thickened, enlarged capillaries might be seen ramifying over the affected part; and if the lesion were allowed to proceed, any amount of deformity might be produced. Although it was commonly limited to the nose, it might extend to the cheeks, and possibly all over the face, and might even assume a butterfly shape. The warty excrescences were rather unusual, but they were simple expressions of the underlying process. The lodgment of micrococci in these sebaceous follicles might have something to do with the development of these new growths. In the majority of cases, rosacea had its origin in an excessive use of beer or ales, although in some instances, it was the result of simple gastro-intestinal disorder, and in exceptional cases, occurred in those who were entirely free from alcoholic indulgence.

The treatment consisted in touching each of these patches with tincture of iodine, and then painting the surface with collodion. When the excrescences had been reduced in this manner, hot water should be applied freely, and then equal parts of blue ointment and zinc ointment. A little later on, the following pigment should be applied:

Chrysarobin.
Salicylic acid . . . each one-half a drachm
Flexible collodion . . . . . one ounce

Pustular Syphiloderm.

Dr. Taylor then showed to the class a man, who exhibited erythema of the fauces, general adenopathy and a general syphilitic eruption

of the type known as the smaller pustular syphilide. It began as a papule and it was rare to find it not interspersed with pustules. Where there was the greatest pressure, as on the back and buttocks, it had caused some inflammation around the patches which were distributed over the body in groups.

PERISCOPE.

Hypnotism Before the British Medical Association.

The *New York Medical Journal*, August 30, 1890, says, editorially:

The obscure phenomena of hypnotism were made the subject of serious attention at the recent meeting of the British Medical Association at Birmingham, when a paper on the subject was read by Dr. Norman Kerr, which was followed by a discussion that occupied the time of the Psychological Section for two days. The reader of the paper accepted practically all the alleged hypnotic phenomena as facts, but in hypnosis, after close watching, he saw only a distorted cerebral state, a condition with exaltation of receptivity and energy which was abnormal. Several questions had to be answered when we came to consider the applicability of hypnosis to therapeutics. Only a limited number of persons were susceptible, and even in these the after-effect was a disturbed mental balance and nerve exhaustion. Deterioration of brain and nerve function, with intellectual decadence and moral perversion, was apt to follow frequent repetition. Dr. Kerr, moreover, maintained that hypnosis itself was a departure from health, a diseased state, a true neurosis, embracing the lethargic, cataleptic and somnambulistic states, and that, if a disease was cured by hypnotism, it would merely be by the substitution of another disease. Hypnotic suggestion might sometimes temporarily assuage suffering, but the underlying disease was not necessarily cured, though evanescent oblivion might be secured, and the lethal power of the morbid disorder was in most cases increased. The few patients he had seen apparently benefited had in no way been beyond the reach of ordinary treatment, but they resisted or were passive to that, while they gave themselves up to the mesmerizer, and became the subjects of what he called a jelly-fish slavery, which was worse than days and nights of pain and rendered their lives total wrecks. In the somnambulistic state subjects had been compelled by the operator's behest to commit crime. So serious were the evils that French surgeons had been prohibited from practicing hypnotism in the army and navy.

The gauntlet was taken up by Dr. Kingsbury, of Blackpool, who has adopted hypnotism in his practice and professes to have effected many cures by its agency. After describing the peculiarities of the two schools of Paris and Nancy, he entered into a discussion of the dangers of hypnotism and the range of its applicability, and detailed the clinical histories of cases treated by him by hypnotic suggestion. In one instance a patient suffered from sleeplessness, the result of a neuralgia. He hypnotized the subject and left a paper with him on which was written: "Go to sleep at once and wake up to-morrow morning at 7.30. You will have no pain when you awake." And the experiment answered admirably. Seven out of ten persons were susceptible to the influence. He maintained that hypnotism was a useful adjunct to regular treatment, and said that it behooved medical men to become familiar with it, so as to be able to use it in special cases. Demonstrations were then given by Dr. Kingsbury and Dr. Tuckey on two subjects brought for the purpose from Manchester. The usual performances were gone through with, in no way differing from those commonly seen on the public platform.

A general discussion of the subject then took place, in the course of which Dr. Gairdner, of Glasgow, said he should leave the meeting in a somewhat different state of mind from that in which he entered it, and had not the smallest doubt that many other persons present would be in a similar state to his own. A great many years ago he had been disgusted by an exhibition of hypnotism in the drawing-room. While he did not doubt that there was a great psychic force involved in it, still, he had the strongest feeling that there was something, to use a Scotch expression, "no canny" about it, and that it was not for physicians to tamper with. Dr. Clifford Allbutt sided with the hypnotizers in the discussion, and referred to Dr. Norman Kerr's brilliant rhetoric, but failed to find in his discourse mention of any facts. If the profession did not take up the subject, it was sure to fall into the hands of quacks. He did not think that medical men were justified in

throwing the whole thing overboard. Dr. Hack Tuke had been much interested in the phenomena, and thought the subject had a direct medico-legal bearing. He gave instances of patients who had been directly benefited by it. Another speaker, alluding to the moral aspect of the question, asked very pertinently whether any of those present would allow their wives or their daughters to be hypnotized except on the strongest possible grounds. If not, they had no right to hypnotize others. The opinion was very generally expressed that it was time for the government to put a stop to the disgusting public exhibitions of hypnotism which were becoming very prevalent, and that it would be well for the British Medical Association to appoint a committee to investigate the whole question of hypnotism and to give facilities for experiments upon lower animals as well as upon human beings.

On the whole, this discussion, which is the first occasion on which the subject has of late years gained the serious attention of the profession, will yield good results. The matter has been carefully considered. Evidence *pro* and *con* has been weighed, and both sides have had a fair hearing. To whatever length the friends of hypnotism may go in France, it is certain that in England its title to be considered a therapeutic agent of utility must be fully proved before it is accepted.

Absence of Both Hands.

Dr. James Finlayson, Physician to the Glasgow Western Infirmary, describes in the *Archives of Pediatrics*, September, 1890, a case of congenital deformity, which is of much interest. The bones of the forearm were shorter than normal, and she had absolutely no trace of hands. There were, indeed, little wart-like projections on both stumps. On the left, this projection was seen to consist of two portions, the smaller one being on the radial side, while that on the ulna was divided into four by minute grooves. On the right stump, the wart-like projection was smaller and simpler. The photograph shows both. Professor Cleland, who examined the limbs, found no trace of carpal bones. In the right arm the ulna was shorter than the radius, the end of which was somewhat curved. The radius and ulna were not united in either of the stumps.

The child could sup with a spoon. She could do this by inserting the end of the handle of a teaspoon under her sleeve, balancing the lower part of the handle on the stump, and guiding the contents to her mouth. If a tablespoon of the ordinary size were given to her while her arms were bare, one could see that she held it in the flexure of her right elbow, the end of the handle going behind the humerus, and the stem of the spoon being supported by the stump; if any difficulty occurred in lifting or filling the spoon, she steadied the tip of the spoon with her other stump. Her left stump guided the inclination of the basin as required. In this way she could sup milk with considerable rapidity and precision. She could also write with a pencil on paper. She held the pencil between the two stumps. She had, apparently, only learned at school to write down figures. She could lift toys with ease, and she could take sweetmeats out of a wide-mouthed bottle by balancing them, one by one, on the stump, using the right one by preference. She could even lift ordinary pins off the floor. She was tried with scissors, but she had not practiced cutting paper before. She put the tapering corner of the right stump through the upper ring, and, after adjusting the paper, she put the angular part of the left stump into the lower ring, and then began to clip. This was done somewhat unevenly, but it had not been practiced. She could turn over the pages of a book with great precision, and was very particular not to take two leaves at a time.

The girl was admitted to the Royal Hospital for Sick Children, Glasgow, on April 20, 1889, for some digestive disorder. She was detained for a little time, after recovering, in order that her deformity might be studied further. She was six years old. No malformations were known in the families of the parents. The first child of the marriage is living and healthy. The second was stillborn. The third and fourth pregnancies resulted in miscarriage at the third month. Fifth pregnancy: the child was born alive, but only survived twenty hours. Sixth pregnancy: the child is still living and well. The seventh pregnancy resulted in the birth of the girl here described; she was born at the seventh month. The only incident the mother could mention as notable was the occurrence of a bleeding, similar to the menstrual discharge, about the middle of this pregnancy.

The girl seemed remarkably bright and

clever. She had no other defect or malformation. The town authorities had tried to help her by supplying artificial hands furnished with hooks, etc. But the child's power of using her own stumps rendered these artifices worse than useless.

Cause of Cholera.

The *Abstract of Sanitary Reports*, August 29, 1890, quotes from the *Journal d' Hygiene*, July 24, 1890, that the French Society of Hygiene has received from Dr. Tholozan, honorary member of the Society, some precise information with regard to the outbreak of cholera in Mesopotamia. He asserts that cholera lingered in this region during the winter in a light, sporadic form, to break out with violence with the first heat of summer, and that in view of this fact the theory that choleraic epidemics can be controlled and subdued by restrictive measures must be abandoned.

The unexpected appearance of cholera in certain small localities in the province of Valencia, Spain, is also fatal to the tradition which makes all cholera epidemics originate on the banks of the Ganges. The partisans of a theory which reigned supreme from 1867 to 1887, and which was affirmed by every international congress of hygiene and by the academies of sciences and of medicine, will find it difficult to deny that the cholera which appeared in the village of Puebla de Rugat was an epidemic of local origin, a revival of the great choleraic epidemic which in 1884 and 1885 prevailed in Spain and especially in the province of Valencia.

In 1875 Dr. Tholozan showed by authentic reports that many epidemics of cholera and plague originate on the spot from germs previously deposited in the soil. At the conference of Rome and at the Congress of Hygiene of Vienna, the French delegates urged the establishment between the several States of the two hemispheres of an international treaty, directed against pestilential diseases (cholera, yellow fever and plague). Among the fundamental terms of this treaty an international sanitary inspection of vessels entering the Suez Canal was proposed.

In his last study of cholera, Pettenkofer demonstrates from the history of choleraic epidemics that general prophylactic measures, based on the theory of contagion, measures costly and impossible of application, have proved their complete inutility in the past, and that they will be equally inefficacious in the future.

On the other hand, Dr. Mahé, sanitary physician of France at Constantinople, in a paper on the progress of Asiatic cholera from the East Indies westward during the past decade, asserts that all choleraic epidemics which have descended upon Europe have come, some by direct irradition of the epidemic from Hindoostan, some by importation into the Hedjaz and Egypt.

Sir Joseph Fayre, in an article presented to the Medical Society of London, on the natural and epidemiological history of cholera, arrives at the following conclusions:

"The theories of contagion and propagation by human means do not explain the spread of choleraic epidemics, since their frequency and direction and the rapidity of their propagation bear no relation to the development of the means of communication.

"Epidemics, although a constant condition of the life of man, are not unavoidable and are subject to common sense and the laws of hygiene."

Dr. Kelsch, of the *Val du Grace*, after an impartial review of the rival theories which have disputed the ground during the past half century, the theory of importation, supported by Fauvel, Rochard and Proust, and the theory of evolution, supported by Jules Guérin, Tholozan and Didiot, sums up the discussion with the practical conclusion that the prophylaxis of cholera belongs primarily to local and individual hygiene.

In 1884 Dr. Jules Rochard, in a report on cholera in Toulon, read before the Academy of Medicine, asserted that "cholera can reach us only by way of the Red Sea. The Suez Canal is the only dyke which protects Europe against this scourge. Whenever it shall be broken a destructive flood will sweep over Europe."

Case of Gastrostomy.

Dr. George W. Gay, Visiting Surgeon to the Boston City Hospital, reports the following instructive case in the *Boston Medical and Surgical Journal*, Sept. 4, 1890.

Early in the summer of 1889 a large-framed, powerfully built man, about fifty years of age, came to his office, complaining of inability to swallow anything but liquids. This difficulty had been gradually

increasing for about a year. He had lost much flesh and strength, and was slowly starving to death. Hungry all the time; felt that he could eat anything, and in large quantities, if he dared to do so. He was obliged to confine himself to liquids, and could take those only in small sips, otherwise they were immediately regurgitated. The first mouthful, as he said, was all right, but after that "everything comes up." There was no sharp pain, merely a sense of pressure. He had lost thirty pounds in weight during his illness, and was in a pitiable condition. On exploration with the œsophageal bougie, only the next to the smallest size could be passed through the stricture, which was located behind the sternal notch. The glands in the neck were somewhat enlarged. Nutritive enemata of milk and beef juice were ordered every six hours. These afforded only partial relief, and the man begged to have something radical done. He was anxious to take any risk for relief, and under the circumstances Dr. Gay finally consented to accede to his urgent solicitations to open the stomach, in other words, to do gastrostomy.

The operation was done at the City Hospital, under ether, July 21, 1889. An incision four inches long was made, an inch and a half below the border of the ribs on the left side, commencing about two inches to the left of the ensiform cartilage. On dividing the peritoneum to the extent of an inch and a half, the stomach was found collapsed about five inches from the anterior abdominal parietes. It was drawn into the wound, and placed under easy control by means of two wire loops about three-fourths of an inch apart, passing through the outer coats of the stomach. The organ was then secured to the edges of the wound by means of silk sutures, the peritoneal surfaces being carefully apposed all around the abdominal incision. Finally, with a tenotomy knife an incision, or rather a puncture, not over a quarter of an inch in size, was made into the stomach. It was just large enough, in fact, to admit the point of a small glass tube, which served as the nozzle to the syringe or feeding apparatus. Eight ounces of warm peptonized milk were slowly injected into the stomach, and the small opening securely closed by simply twisting the wire loops very loosely. The dressing consisted of iodoform gauze and swathes.

The patient rallied well from the anæsthetic. He was fed every five hours in the following manner: Half a pint of warm peptonized milk, with or without bovinine, was slowly poured into a small glass funnel, to which was attached a rubber tube about two feet in length, this being about the fall required for the liquid to flow easily into the stomach. The patient declared positively and repeatedly that he felt much less hungry, and less prostration and restlessness after the artificial feeding was commenced. He even felt so well that he got out of bed, although warned against doing so. He lay in bed, received his food regularly, and was comparatively comfortable, requiring no morphia till eight days after the operation, when he was seized with severe pain in the epigastrium, due probably to separation of adhesions about the wound. The distress was readily controlled with morphia, given under the skin. Two days later he had a sudden and severe attack of dyspnœa, amounting, in fact, to orthopnœa. It did not persist, and gave little trouble afterwards.

Fifteen days after the operation some difficulty was met with in trying to introduce the tube into the fistula, and the liquid caused pain, indicating that, in all probability, it did not enter the stomach directly, if at all, but rather some adventitious cavity outside that viscus, a fact proved by the autopsy. Rectal feeding was substituted for three days, when the method by the artificial operating was again resumed. At this time the stomach began to get irritable, and the food was rejected soon after being introduced. The strength began to give way; a moderate febrile condition developed; consciousness was retained to the last; food was rejected both from the stomach and from the rectum. The man died from exhaustion twenty-six days after the operation.

The *post-mortem* disclosed chronic pulmonary tuberculosis, cancer of the œsophagus, acute diffuse peritonitis, senile atrophy of the kidneys, chronic pleurisy and cloudy swelling of the kidneys and liver. Three small, ragged tuberculous cavities were found at the apex of the right lung. It should have been stated above that a troublesome cough developed during the last few weeks of the patient's life. It was never severe enough to call for special treatment. At the autopsy it was found that the external wound communicated with the stomach, and also that a cavity had formed between the stomach and spleen and surrounding tissues. A certain amount of the food had evidently

entered this cavity, thereby causing the pain. About half a pint of whitish opaque fluid was found in the peritoneal cavity. The peritoneum in the region of the liver was lined with an opaque white membrane. The surface of the stomach was of a diffuse red color, on the posterior and lower portion, the rest of the walls being dark green from *post-mortem* changes. The glands were somewhat enlarged.

The whole circumference of the œsophagus for two inches above the sternal notch was the seat of a rough, elevated, nodulated growth, having an irregular outline, and being fully an inch thick in one place. It was more especially developed on the posterior surface of the canal. The microscope showed the growth to be composed of reticulated connective tissue, with epithelial cells in spaces.

Dr. Gay asks: "Did this man get sufficient relief to encourage us in repeating the operation under similar circumstances?" He says he has no hesitation in saying that he did. It is fair to conclude that he lived as long and had less suffering by reason of the operation. The only alternative was hypodermic morphia, a rather poor substitute for food. The breaking down of adhesions between the stomach and parietes was probably unavoidable, on account of the great antero-posterior diameter of the abdominal cavity. If a patient with nearly complete occlusion of the œsophagus is so weak that he evidently has but a short time to live, it is doubtful if much benefit is to be derived from this operation. But, under opposite circumstances, if the person is able to be up and about, and has a prospect of some weeks or months of life, a very considerable relief to the gnawings of hunger, and its attendant restlessness, may be confidently expected from the procedure. Under these circumstances the operation is to be recommended, provided rectal feeding fails to accomplish the object.

Spontaneous Ecchymoses in Hysterical Patients.

Spontaneous ecchymoses of hysterical origin are not very rare, but the cases have not been collected. They are usually noted in observations which treat of bloody sweats, of cutaneous hemorrhages and of the bloody stigmata well known in hysterical patients, in which they constitute, so to speak, the premonitory period. They have been studied especially by Magnus Huss, in 1857, in a remarkable paper which contains numerous medico-legal considerations. For example, he speaks of a servant-girl, twenty-three years old, who began to complain of having been badly beaten by her employers. As proof of her assertions, she showed at the top of her head an effusion of blood, which persisted several days, but without apparent lesion of the skin and which was subsequently accompanied by spontaneous ecchymoses and other cutaneous hemorrhages associated with characteristic hysterical attacks.

Gilles de la Tourette, in the *Gazette Medicale de Paris*, August 2, 1890, describes a new instance of hysterical ecchymosis in a young girl. He has been able to demonstrate the spontaneous appearance of an ecchymosis on the internal surface of the right thigh. He holds that hysteria is only a sign, one of the symptoms of a degeneration of the mind. Hence the crimes committed by an hysterical patient are to be referred to the degeneration, not to the hysteria which marks the degeneration.

Preventing Hemorrhage During Amputations at the Hip-Joint.

Dr. J. A. Wyeth, of New York, has recently designed the following method of preventing hemorrhage in amputation at the hip-joint. The limb having been elevated and an Esmarch bandage having been applied, two steel mattress needles, three sixteenths of an inch in diameter and a foot long, are used. The point of one is inserted an inch and a half below the anterior-superior spine of the ilium and slightly to the inner side of this prominence, and is made to traverse the muscles and deep fascia, passing about half way between the great trochanter and the iliac spine, external to the neck of the femur and through the substance of the tensor vaginæ femoris, coming out just back of the trochanter. About four inches of the needle should be concealed by the tissues. The point of the second needle is entered an inch below the level of the crotch internally to the saphenous opening, and, passing through the abductors, comes out about an inch and a half in front of the *tuber ischii*. No vessels are endangered by these needles. The points are protected by corks to prevent injury to the operator's hands.

A piece of strong white rubber tube half an inch in diameter, and long enough when tightened in position to go five or six times around the thigh, is now wound very tight around and above the fixation needles and tied. The Esmarch bandage is removed and five inches below the tourniquet a circular incision is made, and a cuff which includes the subcutaneous tissues down to the deep fascia is dissected off to the level of the lesser trochanter, at which level the muscles and vessels are divided squarely and the bone sawed through. All vessels (including the veins) which can be seen are tied with catgut and the smaller bleeding points can be discovered by slightly loosening the tourniquet. The remaining portion of the femur is now easily removed by dividing the attached muscles close to the bone and opening the capsule as soon as it is reached. On lifting the end of the bone in the direction of the patient's navel and dividing the cotyloid ligament posteriorly, the air enters the cavity of the acetabulum and greatly facilitates the division of the ligamentum teres. —*Annals of Surgery*, August, 1890.

Experiments with Brown-Sequard's Elixir.

A case was recently tried in a Cincinnati court in which the conditions were rather peculiar, and in which the finding of the judge was of interest to others than the one directly concerned in the matter. It seems that a physician of that city was sued by a man who claimed to have been injured by experiments with the elixir of youth. The man had been paralyzed for some time, and could get about only with much difficulty. The physician called him in as he was hobbling past his office, and proposed to try the effect of the "elixir" on his paralysis. The old man consented, and a charge of the stuff was injected into each leg. The result was that an abscess formed on his paralyzed leg, from which he suffered greatly.

The patient did not apply to the doctor for treatment, and the doctor made no charge for what he did. It was an experiment, attended with danger, which the doctor was eager to make, and the patient, with perhaps a limited understanding of the matter, seemed willing should be tried.

It was contended by the defence that the case was not one of malpractice, nor could it quite be called an assault, and it fell short of the definition of a tort. Although the sufferings of the patient might be directly traceable to the doctor's act, yet it was a question whether the doctor did anything of which the law could take cognizance.

The jury, however, brought in a verdict against the defendant, assessing the damages at seventy-five dollars. The judge charged the jury that it is not malpractice where a physician treats a patient upon his own motion and without pay, but the physician is bound to use ordinary skill even under such circumstances, and if he does not use such skill, or is guilty of carelessness, he is guilty of a tort for which he is liable in damages. —*Medical Record*, August 30, 1890.

A Mistake about Clean Surgery.

The correspondent of a Paris newspaper, *Le Rappel*, writing from Berlin in regard to the statement of Sir Joseph Lister that he had abandoned certain details of his aseptic method, and his acknowledgment of the value of the procedures of Bantock and Tait who had so often attacked his method, complained that Lister might as well have mentioned the Frenchmen, Jules Lefort and Armand Déspres, who had taken the same position as the Englishmen mentioned, and by the use of scrupulous cleanliness had secured the best results in surgery. The *Mercredi Médical*, August 20, 1890, referring to this, points out the error of *Le Rappel*, which confuses Jules Lefort, who is a pharmacist, with Léon Le Fort, who is a distinguished surgeon: and says that it is rather amusing to have Déspres credited with scrupulous cleanliness in surgery, in view of the fact that he makes it his boast that he never brushes his finger-nails, and that he has perpetuated the traditions of "dirty dressing."

Damascenine.

Dr. Alfred Schnider, of Dresden, has isolated from the seeds of Nigella damascena, L., an alkaloid which he names damascenine. The solutions of the alkaloid in water, alcohol, ether and fixed oils, exhibit a beautiful blue fluorescence, which can be observed in dilutions as high as 1 to 200,000. The formula of the body is $C_{10}H_{15}NO_3$. It is crystalline and forms crystalline salts.—*Druggists' Circular*, September, 1890.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

INTERMARRIAGE AND THE PROPAGATION OF DEAFNESS.

In a paper published in the *American Annals for the Deaf*, July, 1890, Mr. W. G. Jenkins discusses a charge made by Professor A. Graham Bell, we believe, in the *British Medical Journal* of May 11, 1889, that philanthropy in the United States is doing every thing possible to encourage marriage among deaf-mutes, and that we educate them together, teach them a language of their own, so that they know nothing of English, with a broad intimation that the methods of educating the deaf approved and practiced in America tend to confirm their condition and to multiply the number of persons so afflicted. Mr. Jenkins, in a thoroughly courteous manner subjects the evidence given by Professor Bell to what he calls "that sifting process which honors no name, respects no authority, which strips itself of all preconceived notions, and chronicles only what investigation proves to be the clean, filtered truth."

In doing this he points out a very common source of error in scientific discussions, namely, the undue weight attached to the opinion of men, learned in other subjects, who have no exceptional share of knowledge in regard to a particular one under consideration. "Such," he says, "is the vicarious character of a national reputation, that a man carries with him all the weight of his special equipment, even when passing beyond the limits of his particular field. So distinguished an authority as Max Müller recently gave expression to the opinion that deaf-mutes, left to themselves, would rise no higher than orang-outangs, although he immediately qualified this by declaring himself an agnostic as to the inner life of deaf-mutes. The statement is an illustration of how far a man confessedly great in one branch of study may go wrong when treating of questions outside of his specialty." Mr. Jenkins comments especially upon the charge that the intermarriage of the deaf is calculated to multiply the relative frequency of deaf-mutism. If this were a source of real danger, he says, the American Asylum at Hartford, after a history of more than two generations, ought to show some signs of it; but of the first hundred pupils admitted, beginning in the year 1817, forty-five were born deaf, while of the last one hundred, ending in 1889, forty-one were born deaf; so that after seventy years of deaf-mute education, with its enormous proportion of deaf-mute marriages and the asserted increasing percentage of deaf-born children, the proportion born deaf remains practically unchanged, the slight change which has occurred being a decrease.

As to the principles which are involved in intermarriage of the deaf, he cites Professor W. K. Brooks, of Johns Hopkins University, that the conditions for the evolution of a deaf-mute race are that those among

the deaf who marry must have the same inherited peculiarity. From this statement of the case, Mr. Jenkins doubts whether any of those most familiar with the deaf would dissent. The only comment they would be likely to make would be that marriage among the deaf of those having the same inherited peculiarity is as rare as marriage between people with red hair. Furthermore, the law of regression, as announced by Professor Galton, will assert itself; and there will be a constant tendency, even among the children of parents having the same peculiarity, to revert to the normal type. The evolutionary process which produced hearing ought in time to repeat itself, and individuals in the variety would soon multiply, and the defect in time be eliminated. The reference of writers to the experience of breeders is not quite pertinent, for in none of their cases was the point to be transmitted a defect. Success in the progressive development of new species, Mr. Jenkins thinks, ought not to be cited to prove that the attempt would be equally successful in a process of deterioration. This much is evident, that, if a deaf-mute variety could ever be formed, it would only be after rigorous selection among those whose heredity had already become a fixed quantity, under the controlling purpose of making the experiment a success. That this will ever take place, the wildest pessimist of the future of the deaf will hardly venture to claim.

This is a subject of great interest and of equal practical importance, and it deserves the careful attention of medical men. So much is gained by bringing together persons afflicted with deafness, by way of mitigating the severity of their hard lot, that philanthropists naturally cling to the hope that it is not a practice dangerous to posterity; and it is comforting to find that one so experienced as Mr. Jenkins should take the view of the matter cited above. We trust he is right, and that the deaf need not be debarred from marriage among themselves.

CONSUMPTION AMONG FIREMEN.

The attention of the readers of the REPORTER is especially called to the article in this number by Dr. Mays which contains facts of great importance in connection with the etiology of consumption. There are many who, in this age, regard it as a sign of defective intelligence to question the importance of the rôle attributed to bacteria in the production of a number of diseases, and in none more notably than in consumption. And yet, in this as in other diseases, from time to time facts are reported by competent and discreet observers which very much weaken the force of the arguments, accepted by many as incontrovertible, on which the germ theory of the disease rests.

It is interesting to observe the result of such investigations as Dr. Mays has recently conducted and now reports in this journal. Firemen are, as he says, of all men those who seem least liable to contract consumption by contagion, and yet his figures indicate that they are far more liable than the average individual to contract it in some way, and very nearly as liable as those persons especially exposed to this danger, upon whose history men like Cornet rely, to prove the contagious nature of this disease. The study which Dr. Mays has undertaken is useful in itself and may be useful as suggesting lines of inquiry which will furnish material fitted to be the basis of sound and wise conclusions in regard to the so-called contagiousness of phthisis.

PYOKTANIN FOR TUBERCULOUS LARYNGITIS.

The result of continued investigations in regard to the virtue of pyoktanin have brought about somewhat contradictory announcements. These seem to show that it is not of much service in the treatment of diseases of the eye for which it was at first so highly recommended; but it appears as though there were conditions for which it has de-

cided usefulness. Dr. J. Scheinmann, assistant in the University Polyclinic for Throat and Nose Diseases in Berlin, reports in the *Berliner Klinische Wochenschrift*, August 1, 1890, some very remarkable results of the use of pyoktanin in the treatment of tuberculous ulcerations of the larynx and the nose. The method of treatment recommended by Scheinmann for tuberculosis of the larynx consists in the administration of creasote in increasing doses, inhalations of menthol or cresol continued for months, together with massage to combat paresis of the adductors and the subacute catarrh. As a basis of treatment in every case he attaches great importance to antiseptic inhalations, among the most efficient of which were menthol or cresol. In many cases it is necessary to make local applications to the ulcers in the larynx and pharynx; and for this he recommends lactic acid, but he prefers, as more mild and more prompt in its action, pyoktanin which, in his hands, has given admirable results. It has proved absolutely unirritating and its use has been followed by rapid cicatrization. Electrolysis has proved of use in his hands as a mild and efficient remedy. Scarification, curetting and excision are occasionally called for. With the co-operation of Prof. Fränkel, Scheinmann undertook to test the value of pyoktanin in these conditions. The way he used it was this: the knob of a flexible copper probe was heated and dipped in a pure powder of blue pyoktanin. This caused the adherence of a firm half-burnt layer, to which pure pyoktanin adhered in fine granules. This probe was passed into the nose and larynx and the pyoktanin was energetically rubbed on the surface of the ulcers, the parts having previously been anæsthetized with cocaine. After using, the probe was put in the flame, by which the pyoktanin was ignited and lost its coloring property. The action of pyoktanin is easy to follow and to limit because it has such powerful staining property. Usually the ulcers, after two or three days, show lighter coloration and a decided improvement. The secretion disappears, and it is hard to tell whether the ulcers are still there or cicatrization has already begun. The action of pyoktanin itself seems to be painless. Scheinmann speaks of two cases, out of a number, in which he used this method with very good results.

This very interesting communication deserves especial attention, because there are few disorders more troublesome than tuberculosis of the larynx. There is strong theoretical reason to expect that pyoktanin would act favorably upon such conditions, and it would be a great boon if further experience shows that it really has a favorable action upon local tuberculous manifestations.

NOT A FAST, BUT A FRAUD.

For several months past the newspapers have been publishing sensational descriptions of the condition of a woman in Allentown, Pa., whose case is said to have "puzzled the doctors." It is asserted that she has not tasted food for nearly six months, and some accounts say that she did not drink any water. Of course, such a case is regarded as marvelous by the general public. But the like is not unknown in medical history. Physicians know that it is absolutely impossible for life to be maintained for such long periods, especially in connection with violent muscular exertion such as accompany convulsive action, and this has been a prominent feature of the case of the woman referred to.

The REPORTER has taken the trouble to investigate this matter in the interest of science, and can assure its readers that this is not a case of fasting. We have no hesitation in asserting that this woman receives both food and drink every day. At present she is not emaciated, or but slightly so. She perspires, her muscles are firm, and she has considerable deposit of subcutaneous fat. She has regular, though not frequent, motions of the bowels. Her attending physi-

cian is quoted by the newspapers as believing the case to be one of genuine inability to partake of nourishment by the mouth; but the readers of the REPORTER will understand that the facts stated above are absolute and convincing proof that she does get food and assimilate it regularly, notwithstanding the belief of her physician.

This is not a case in which there can be any doubt at all. In due time, we shall probably learn just how her feeding is managed; but this information is not at all important to a just opinion in regard to the case. Quite a number of similar impositions have been practiced in the past, but all have been finally detected. The present case is not at all wonderful from a physiological standpoint, but interesting as a so far successful imposition on the public.

PECULIAR ADVERTISEMENT.

The *Allgemeine Medicinische Central-Zeitung*, which is one of the most interesting and instructive of our German exchanges, contains, in its issue of July 26, an advertisement of a "Damenseife matrimon. secreto," or a soap especially prepared for married women, which is recommended as a deodorant and antiseptic, and is said to deserve the most careful notice because of its peculiar power in preventing "development" (entwickelungshemmende Eigenschaften). Entwickelung means development; but it is the word technically applied to embryological development. To the pure all things are pure; but in this advertisement there seems to be somewhat more than appears on the surface.

CORRECTION.

The address of Dr. T. J. Happel, author of the paper on Medical Treatment of Typhoid Fever, in the REPORTER, September 13, is Trenton, Tenn., instead of Nashville, where it was read.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

THIRTEENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE STATE OF NEW JERSEY, AND REPORT OF THE BUREAU OF VITAL STATISTICS FOR 1889. 8vo, pp. 486. Camden: F. F. Patterson, 1890.

The present volume includes the Report of the Secretary of the Board, Dr. Ezra M. Hunt, of Trenton, which is a good review of the sanitary requirements of the State. The following articles also find an appropriate place: The Thermometry of Hygiene, by Dr. D. Benjamin, of Camden; The East Orange Sewage Disposal Works, by C. P. Bassett, M. E., of Newark; Sewer Systems of the State, by Dr. A. Clark Hunt; Tuberculosis, by Dr. S. G. Dixon, Philadelphia; Disposal of Town Refuse and Garbage Destructors, by Dr. Ezra M. Hunt; Physical Culture, by Principal Green, of the State Normal School, Trenton; The Need of Medical Officers for School Districts, by Dr. B. F. Wilbur, of Asbury Park; The Improvement of the Sanitary Conditions of the Health and Pleasure Resorts of New Jersey, by Dr. Henry Mitchell, of Asbury Park; and Abstracts from Papers and Discussions of the New Jersey Sanitary Association, 1889, by Dr. D. C. English, of New Brunswick.

The volume concludes with a summary of the reports of local boards of health, the health laws and circulars, and the medical registry for the year. It reflects credit upon the medical profession of New Jersey, and especially upon the able Secretary of the Board, Dr. Ezra M. Hunt.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Twenty-second Annual Session, at White Sulphur Springs, July 17 to 19, 1889. 8vo, pp. 84. Wheeling: 1890.

The address of the President of the Society, Dr. L. D. Wilson, of Wheeling, reminds one of the formal addresses which formerly it was the rule for presidents of societies to give. At the present day, however, the members are too anxious to get to work to listen to a long address. Dr. Wilson gave his hearers a great deal to think about, and we hope that the bare mention of the fact that twenty of the counties are without representation in the State Society will in itself be sufficient to rectify this most unfortunate neglect. The subject of medical examining boards was discussed. Dr. Wilson is in favor of boards chosen by the State Societies. In this he differs from those who have given the matter most careful study.

Dr. J. N. Upshur, of Charleston, has a paper on Reflex Bladder Troubles, in which he reports an aggravated case for which a great deal—perhaps too much—was done locally without benefit. The case seems to have been one of hysteria, with heightened sexual excitability. Dr. W. W. Tompkins, of Charleston, reported some cases of hemiplegia. Dr. J. D. Myers, of Huntington, read a paper with the rather striking title, "Care of Our Females." He urged the importance of hygienic care of the female sex from earliest infancy. Dr. William C. Dabney, of the University of Virginia, read an interesting paper on the Significance and Treatment of Cardiac Pain. Dr. Joseph A. White's paper, on Nasal Obstruction, deal with this condition and its relation to "catarrh" of th

throat and respiratory passages, and also to headache, cough, etc. Dr. E. H. Fravel, of Poca, reported an interesting series of one hundred cases of ulceration of the cornea. Drs. Thomas R. Evans and D. Mayer, of Charleston, read short papers on a case of Cancer of the Stomach without Pain, and The Mineral Waters of Crockett Warm Springs, which contain arsenic, bromine and lithium.

The volume scarcely does the profession of West Virginia justice. We hope more of them will attend the meetings of the State Society, and make the next volume of Transactions considerably richer in clinical material.

LITERARY NOTES.

—The seventh edition of "Da Costa's Medical Diagnosis" is now announced by J. B. Lippincott Company as ready. The work has undergone a thorough revision at the hands of its eminent author, and many chapters have been entirely re-written, so as to inculcate all that has been added to our knowledge of disease up to the present time. A number of wood-cuts are included, especially of such micro-organisms as have proved to be of practical significance in diagnosis. All the illustrations are original, and many are from sketches, or based on sketches, taken directly from cases of interest. There is no work more helpful to a young practitioner than this one, which has already been pronounced by eminent critics the best book on diagnosis extant.

—A valuable book just issued by J. B. Lippincott Company, is Professor Garretson's Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, and associate parts. Upon the appearance of the first edition many years ago, it assumed the leading place as a text-book, to which its merit and the distinguished position of its author entitled it. Much important matter has been added to the new edition, together with numerous illustrations, which greatly increase its value to dentists, surgeons and physicians.

CORRESPONDENCE.

Traumatic Tetanus.

To the Editor.

Sir: The following two cases of traumatic tetanus occurring in my practice may interest some of the readers of the Reporter, and so I send their histories to you for publication.

The first case was that of a young farmer, living near Marshall, Va., who was cutting corn. By a slip of his knife he nearly severed the first and second phalanges of his left hand. Though a sufferer from acute pain and the crude dressing of the wound, he continued work until the third day after the accident. When I visited him his jaws were so tightly locked that the blade of a penknife could not be inserted between the incisors, and deglutition was impossible. The patient was pale and in a state of health far below par, perhaps due to his late labors in a lead factory. His sufferings were intense from muscular spasms, dyspnœa and precordial distress. Notwithstanding the prompt use of anæsthetics, hypodermic remedies, enemeta and hot water appliances to the surface, he succumbed to death on the night of the fourth day after his injury. A fatal result in this case might have been averted had a physician been called promptly.

The second patient was a boy, eight years old, who was nearly recovered from traumatic tetanus, induced by a severe self-inflicted wound of the thumb. Under proper treatment and hygiene, he was making a good recovery, when unluckily an indulgent mother, contrary to directions of her physician, allowed the lad to be exposed out-doors to wet, cool weather, in the midst of which he received a blow on the wounded finger. After his relapse and within twelve hours after the second injury, all the symptoms of tetanus returned with a fatal result shortly following.

Professor S. D. Gross, in his *System of Surgery*, urges in the treatment of tetanus the importance of the removal of any foreign substance from the wounded part, and, where any fibro-cartilaginous hardness exists, to dissect out this tissue and to poultice, confining the patient to his bed, feeding well and avoiding all excitement of mind or body, adding that "one of the most valuable diagnostic symptoms of tetanus is the terrible distress in the precordium."

Yours truly,

Frederick Horner, M. D.

Marshall, Farquier Co., Va.,
September 10, 1890.

NOTES AND COMMENTS.

Poisoning by Mussels.

In the *Lancet*, July 26, 1890, Sir Charles A. Cameron, of Dublin, says: On June 30, Mrs. O'Connor, her five young children and her maid-servant—residing at Seapoint, County Dublin—partook of a meal of stewed mussels. In about twenty minutes after the ingestion of the mussels, some of the children stated that they felt a prickly ("pins-and-needles") pain in their hands. Graver symptoms rapidly supervened, and in less than an hour one of the children died, the

mother and three other children succumbing within two hours after eating the mussels. The chief symptoms were vomiting, dyspnœa, swelling of the face, want of co-ordination in movement and spasms, principally in the arms. The patients appeared to have died asphyxiated, their faces being intensely livid. One of the children and the maid (the latter had eaten but few of the mussels) suffered very much, but recovered. Medical assistance came rather late and was not of much use. The mussels had been procured from a small sheet of water, to which the sea had access, but which received fresh water and some sewage. Examinations of the water at low and high tides showed that its saltness was twice as great when the tide was in, a proof that land water drained into it when the tide was out. This land drainage would necessarily, from local conditions, be impure.

It was deemed necessary for judicial purposes that the cooked mussels, and the matters vomited by the patients, should be examined for ordinary poisons. This was done, with negative results. The uncooked mussels, compared with mussels of the same size from the open sea, appeared to have much larger livers and their shells were very brittle. An attempt to extract an alkaloid was made. The generic tests applied clearly proved the existence of a leucomaine, which, indeed, was obtained in crystals visible under the microscope, and corresponded to those described by Brieger as existing in the poisonous mussels which he examined. The quantity of material available did not, however, yield a sufficient quantity of the leucomaine for a thorough examination. I have procured a supply of mussels from the pond in which the poisonous mussels were found, and hope to be able to extract from them a substantial quantity of the leucomaine, which will probably be found identical with Brieger's mytilotoxine ($C_6H_{15}NO_2$). The mussels are mixed with mud having an offensive odor.

The Seapoint case is another instance of poisonous mussels being procured from foul or stagnant water. In this case the opinion of M. Dutertre, that the liver of poisonous mussels is the seat of disease and the generator of the poisonous leucomaine, seems confirmed; but I cannot agree with the French observer that the disease is never the result of the poisonous nature of the food of the mussel. I have read all, or nearly all, the cases of mussel poisoning on record, and I gather from such details as are given with respect to the places in which the mussels were found that they were in contact with sewage or stagnant water.

Splenectomy.

In the *University Medical Magazine*, September, 1890, Dr. M. Howard Fussell, Chief of Medical Dispensary in the University of Pennsylvania, gives an account of a patient of his upon whom Dr. Charles Penrose did the operation of removing the spleen which was enlarged to four times its normal size. The exact nature of the tumor for which the abdomen was opened was not known before the operation was undertaken. The patient died in about forty hours after the operation.

The history of this case is followed by a table of splenectomies, collected by Dr. Fussell up to April, 1890. In making up this table he has made use of the statistics of Otis, Foubert, Péan, Asch, McCann and Franzolini, and has, wherever possible, confirmed their statistics by reference to the original articles.

An analysis of the table gives the following results:

Cause of Operation.	Number	Deaths	Recoveries
Simple Hypertrophy,	28	19	9
Leukemia,	24	23	1
Accidents,	26	1	25
Floating Spleen,	16	1	15
Cysts of Spleen,	5	1	4
Rupture of Spleen,	2	2	0
Suppuration of Spleen,	2	0	2
Pernicious Anemia	1	0	1
Sarcoma of Spleen,	1	1	0
Totals,	105	48	57

The greatest mortality, taking into consideration the number of cases, is found where the operation was done in persons suffering from leukemia—only one patient having recovered out of twenty-four. This mortality is due not alone to the grave disease from which the patients suffered, but also to the great size of the tumor removed—by far the greatest number of deaths being due to hemorrhage after the operation. The successful case of Franzolini is of especial interest. The blood count before the operation showed undoubted grave alteration in the relation of red to white cells, and the

spleen was but moderately enlarged. One year after recovery from the operation the relation of red to white cells was normal. Taking into consideration the hopelessness of the medicinal treatment of leukemia, it is a question for grave consideration: whether, when a case is seen early, removal of the spleen will not give the best chance for ultimate recovery. When the case is allowed to run on for a great time, removal of the spleen implies almost certain death. In the case of simple hypertrophy death was frequently due to hemorrhage. Asch, in summing up his article, comes to the conclusion that leukemia *per se* is not a contra-indication to the operation of splenectomy, and Wells and others agree with him in this conclusion.

In the cases of accident all the patients recovered with one exception. In all the cases, the histories that I have been able to consult show that there was a wound over the splenic region, through which the spleen protuded, and was ligated and removed. It is seen, then, that the mere removal of the spleen is not, in itself, a highly dangerous operation.

In all the patients who recovered, and whose after-life was studied, there appeared to be no serious interference with any of the functions, and no permanent alteration in the relation of the white to the red corpuscles.

Leprosy and Consumption.

Dr. S. P. Wise, of Millersburg, Ohio, in a paper in the *Monthly Sanitary Record*, June and July, 1890, says:

It may be surprising to some to learn that there is the most striking resemblance between consumption and leprosy that there possibly could be between two diseases. In their pathology, in their course and distribution and many other features the diseases show the closest relationship. In fact, the points of similarity are so numerous that the question has been asked whether leprosy is not itself a tubercular disease. The bacillus of leprosy is so similar in appearance to that of phthisis that the most accomplished bacteriologist can find little or no difference between them. In consumption the germ is conveyed to the lungs by the atmosphere, while in leprosy the virus enters the system through abrasions of the skin on exposed portions of the body. The unshod Japanese are especially liable to the disease. After the inception of the poison leprosy is usually very slow, extending over a period of ten or twelve years, while the victims of phthisis usually last only three or four years. Both diseases tend ultimately to a fatal issue, but both are capable of becoming absolutely quiescent and inert for long periods of time. They are equally uninfluenced by climate and temperature, are distinctly endemic diseases and have both been found in almost every country where human beings are collected together in any number.

These facts are startling in the extreme when we take into consideration how loathsome a disease leprosy is, and how mankind has for ages dreaded it and has excluded the afflicted from all communication by legal enactment as well as by social ostracism. If we became aware that there was a leper in our midst everybody would flee from his presence, and we would take the promptest action possible, and would not relax in our efforts until we would have him securely quarantined. Alas, have you not constantly a disease in your midst which, although not so loathsome in its outward manifestations, is equally as contagious and even more rapidly fatal? Are you not by your kind attentions and loving care exposing yourselves to a contagion which will slowly and insiduously claim you among its victims, while your demise will be accepted as the inevitable result of heredity. It is clearly demonstrated that phthisis can be communicated by inoculation from animal to animal and from man to animal, why then may it not be communicated from man to man?

From a review of the course of the disease in the past and its affinities with other prevalent disorders; from our knowledge of its pathology and of the influences which favor its spread; from the fact of its steady diminution in the last thirty years; from all these points we are justified in regarding it as a preventable disease and may look forward to its further diminution if not its ultimate extinction as a cause of death.

Studies upon the Bacillus of Typhoid Fever.

W. Cygnæus, of Helsingfors, has reported his studies upon the typhoid bacillus, in *Beiträge zur path. Anat. und allg. Path.*, 1890, Band vii. From the *Gazette Hebdomadaire*, August 16, 1890, it appears that Cygnæus has repeated the experiments of

Frænkel and Simmonds, Chantemesse and Widal, Lepidi-Chiote, and others, upon forty-four animals of all sorts, which were inoculated by way of the duodenum, rectum, or mouth, or even through the respiratory passages. Of sixteen rabbits nine died, three following intravenous injection, one after intraperitoneal injection, and two after duodenal injection. Of eleven dogs only three died; all had received intravenous injections. The symptoms observed and the lesions were variable. The author admits, however, that very often inoculations, however performed, result in a group of symptoms characterized by fever, insomnia, loss of appetite with prostration of strength, at times diarrhœa, and that these symptoms can result fatally. At the autopsy the lesions are pretty constantly redness and swelling of the intestinal mucosa, of the patches of Peyer and the closed follicles, tumefaction of the spleen, and alterations of the liver; and it is ordinarily possible to discover the presence of typhoid bacilli in all these organs.

These lesions and bacteriological findings are especially decisive when the animal has remained a long time sick. Then the typhoid bacillus is found in heaps in a number of organs. When the animal succumbs rapidly after intravenous inoculation it may be supposed that death has been produced by the action of the products of microbe action, typhotoxine, for example. This is the view of Beumer, Baumgarten, and others. When, on the contrary, death has been slow, and the typhoid bacillus has been demonstrated during life in the excretions, and after death in certain organs, and those the most characteristically diseased, it is difficult not to admit that the micro-organism has a true pathogenic action, in the sense employed by Koch, upon certain animals. [This very moderate conclusion expresses, perhaps better than any argument could do, the uncertainty which still surrounds the pathogeny of typhoid fever.]

Treatment of Metritis.

The Paris correspondent of the *Medical Press*, August 13, 1890, says that M. Doléris has recently warmly urged the treatment of metritis of the body and neck of the uterus by the curette, of which he is an ardent partisan. He divides the operation into a lesser and a greater. The former is reserved for metritis of the body and is performed with a blunt instrument, while the latter is employed in affections of the neck of the womb, and for which M. Doléris has invented a special sharp-cutting curette. For the last ten years he has practiced 700 ruginations and obtained 62 per cent. of cures. He spoke very strongly against caustics which, according to him, produced sclerosis of the organ, atresia and consequently sterility. M. Polaillon in commenting on the paper said that he was successful in 82 per cent. of the cases with caustics, and always had recourse to that treatment before employing the curette. In any case where complications existed, or where the womb was displaced rugination was not as successful as chloride of zinc. M. Charpentier said that, in his hands, the treatment of metritis by rugination was attended with very satisfactory results, and he was inclined to prefer this method to the other where there was no inflammation of the appendices.

Foreign Body Two Years in the Lungs.

Dr. Ducourneau writes to the *Gazette Hebdomadaire*, August 23, 1890, an account of a case under his observation in which a woman while eating swallowed the rib of a bird. This was followed by violent coughing and an attack of suffocation, from which she recovered; but a cough and a pain in the chest continued. The usual symptoms of foreign body in the lungs were then observed: bronchitis, the expectoration of blood, and pain. Twenty-two months afterwards the foreign body was expelled during a fit of coughing, and the woman recovered.

Cooling Ointments.

Cooling ointments are defined by Unna as mixtures of fat and water which, applied to the skin, produce a sensation of cold, owing to the evaporation of the water. They are to be preferred to the usual fat ointments which prevent the normal water-evaporation and which are often of injurious action. Lanolin, owing to its ready miscibility with water and aqueous solutions, was thought to be the best base for such ointments, but experiment did not confirm this; its effect is cooling at first, but this quickly disappears and gives way to a sensation of

warmth. It was found that mixtures of lanolin and fats mix with large quantities of water and these mixtures had a permanent cooling effect. The proportions used in cooling ointments are as follows:

℞ Anhydrous lanolin . . . . . 10 parts
Fat . . . . . 20 "
Water . . . . . 30 "

A "cream ointment" may be obtained by incorporating sixty parts of water instead of thirty. The *American Pharmaceutical Journal*, July, 1890, gives the following formulæ for cooling ointments.

Unguentum refrigerans:

℞ Anhydrous lanolin . . . . . 10 parts
Benzoinated lard . . . . . 20 "
Rose water . . . . . 30 "

Its uses are the same as those of cold cream.

Ungt. refrigerans aquæ calcis:

℞ Anhydrous lanolin . . . . . 10 parts
Benzoinated lard . . . . . 20 "
Lime water . . . . . 30 "

Useful for burns.

Ungt. refrigerans plumbi sub-acetatis:

℞ Anhydrous lanolin . . . . . 10 parts
Benzoinated lard . . . . . 20 "
Solution of sub-acetate of lead . . 30 "

Uses: The same as Goulard's cerate.

Ungt. refrigerans zinci:

℞ Anhydrous lanolin . . . . . 10 parts
Zinc ointment . . . . . 20 "
Rose water . . . . . 30 "

Used in place of zinc ointment.

Ungt. refrigerans ichthyoli:

℞ Anhydrous lanolin . . . . . 10 parts
Benzoinated lard . . . . . 20 "
Distilled water . . . . . 24 "
Ichthyol . . . . . 6 "

Methyl Phenacetin as an Anodyne.

The *Druggists' Circular*, September, 1890, says: The introduction of the methyl group in the place of the residuary atom of hydrogen of the amide group of acetanilid produces the anodyne compound known as exalgine. This fact having been observed it was thought probable that a similar substitution in phenacetin, which is oxyethylacetanilid, might also develop anodyne properties. Experiments carried out to that end indicate that the theory is correct, the introduction of either an ethyl or a methyl group producing a compound possessing marked anodyne properties; the methyl compound being the more active of the two.

Benzosol.

The *Druggists' Circular*, September, 1890, says: Benzosol is the name applied to a compound which may be termed, systematically, pyrocatechin-monomethyl ether. It is looked upon as a derivative of guaiacol in which hydroxyl is replaced by the benzoyl group. This ether is recommended for use in phthisis as being more agreeable to the taste than guaiacol, and it is said to be also less apt to set up local irritation.

Aristol and Collodion.

A good formula for aristol and collodion is the following:

℞ Aristol . . . . . ʒi
Ether . . . . . fʒi ℈i
Collodion . . . . . fʒi

NEWS.

—Typhoid fever is said to be still prevailing in Bethlehem, Pa.

—Dr. H. B. Allyn has removed to No. 310 North Fortieth street, Philadelphia.

—Diphtheria and dysentery are said to have prevailed recently in Stroudsburg, Pa.

—It is reported from Alabama in the newspapers of September 19, that a woman 115 years old was living and well near Greenville, in that State.

—Dr. William N. Angney has brought suit against the city of Philadelphia to recover $10,000, for damages sustained by his property by the bursting of city water pipes in February, 1890.

—A rumor of the occurrence of cases of cholera in Carroll county, Ohio, was sent out September 16. It proved, like all other such rumors of late in this country, to be founded upon error and alarm.

—Dr. Miesterfeld, of Philadelphia, was recently accused of felonously assaulting a young woman who came to him for professional services. Miesterfeld advertises in the daily papers as a curer of special diseases.

—A queer story comes from Chicago that a man named Johnstone has been doing what

he calls "mind-reading." Some of his performances would be very remarkable if they were honestly done and accurately reported.

—It is reported in the newspapers, September 19, from Flushing, L. I., that a woman was living there in good health and good memory who celebrated her 105th birthday (was 104 years old) September 18.

—Dr. E. M. Ferris, a wealthy resident of Brookline, near Boston, committed suicide at his Boston office, September 16, by shooting himself through the head with a revolver. The cause of the deed is attributed to anxiety and overwork.

—The Association of Dental Surgeons, in Baltimore, has decided that no dentist is obliged to answer the questions incorporated in the blanks entitled "Statistics of Manufacturers," which dentists have been requested by Census officers to fill, since, as professional men, they cannot be classed among manufacturers.

—A number of prominent physicians of Philadelphia have united in a protest against the contemplated extension of the Department for the Insane at the Blockley Almshouse (Philadelphia Hospital), on the ground that the site is unfit for the proper care of the large number of patients there, and that the buildings are improperly planned.

—Mrs. Frances Moore Constantine, the oldest resident of Montgomery county, Pa., and probably of the entire State, died September 15, 1890, at the residence of her son in West Manayunk at the advanced age of 105 years and 6 months. Mrs. Constantine was born near Radnor on March 16, 1785. Her parents in their time were well-known residents of that section.

—Dr. Munroe Bond died in Philadelphia, September 15, 1890, aged thirty-eight years. He was a native of New Hampshire, and came to Philadelphia to attend the lectures at the College of Pharmacy, from which he was graduated in 1876. From 1876 to 1879 he carried on a drug store at Sixteenth and Race streets, and in the latter year was graduated in medicine from Jefferson College.

—Dr. Mossell, whose accusation was mentioned in the REPORTER, September 13, has has been exonerated of the charge brought against him. His conduct and evidence and that of well-known physicians who examined the woman who prosecuted him satisfied the magistrate before whom he appeared that he had done nothing but what an honest physician might do in the exercise of his judgment.

—Dr. Horace Evans died in Philadelphia, September 15, 1890. He was born in this city in 1807 and was graduated from the literary and medical departments of the University of Pennsylvania. His association with noted men of the past made him an authority on the history of the past, especially on the genealogies of old families. His residences on Walnut street and Queen lane are relics of the past. The latter was erected in 1730, and was the headquarters of the British cavalry during the battle of Germantown.

OBITUARY.

SILAS HAMILTON DOUGLAS, M. D.

Dr. Silas Hamilton Douglas, one of the founders of the Department of Medicine and Surgery of the University of Michigan, and for twenty-eight years a member of the Faculty, died at Ann Arbor, August 26, 1890, at the age of seventy-four years. At a meeting of the Faculty, held September 4, 1890, a minute was adopted testifying to the respect and regard in which Dr. Douglas had been held. This minute states that he was one of a very few strong men of steady purpose, who opened a way for medical education in that State, and from the first determined that broader foundations should be laid for the support of medical learning. Elected as Professor of Chemistry in the University on August 5, 1846, he was soon active in those movements which obtained the adoption, by the Board of Regents, of a plan for the organization of a department of medicine, presented by Dr. Zina Pitcher and others, January 17, 1848. In the beginning of the medical school he held for a time the chair of Materia Medica in addition to that of Chemistry. Early in the building of the foundations Professor Douglas set out to provide for the laboratory method of study, then nearly unknown in medical schools. When Dr. Douglas had labored in the University for ten years, on May 8, 1856, the Board of Regents made provision for the erection of a building under his charge to serve as a chemical laboratory. This is one of the most complete and efficient in the country. To this and its development Professor Douglas gave the best years of his life. To him and his early associates in medical education a great debt of gratitude is due.

MEDICAL AND SURGICAL REPORTER

No. 1753. PHILADELPHIA, OCTOBER 4, 1890. Vol. LXIII.—No. 14.

CLINICAL LECTURE.

ABDOMINAL SECTION FOR THE REMOVAL OF AN OVARY.—OPERATION FOR PYOSALPINX.—OPERATION FOR PYOSALPINX WITH EXTENSIVE PERITONITIS.—VESICO-VAGINAL AND RECTO-VAGINAL FISTULÆ.[1]

BY E. E. MONTGOMERY, M. D.,

PROFESSOR OF GYNECOLOGY, MEDICO-CHIRURGICAL COLLEGE; OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

Removal of Ovary.

Gentlemen: The first patient I bring before you this morning is a woman twenty-one years old. Two years and a half ago one ovary was removed; but in two months she suffered as severe distress on the other side, and came here to have that organ removed also. The examination by the attending gynecologist, however, led to the belief that the condition was simulated on the part of the patient, with the desire to have the organ removed for immoral purposes. In order to satisfy the patient and make a mental impression, an incision was subsequently made through the abdominal tissues, and the wound was sewed up. This did not result in the beneficial results desired, and the patient continued to suffer. She again returned to the house, and was found in the ward upon my entrance upon duty. Her claim of severe pain has been confirmed by her mistress, with whom she has lived for a length of time, who assures us that so far as she can judge the woman has continuously suffered. The doubt in this matter has been due to the fact that a physical examination disclosed no enlargement of either ovary or tube. In fact the ovary is situated so high that it is not readily brought under observation by palpation.

Two weeks ago I opened the abdomen and found upon the right side a cystic ovary, three times the normal size, which I removed. The woman now expresses herself as being greatly relieved and feeling better than she has at any time since the last operation. The course of her convalescence has been uninterrupted; her highest temperature has been 101°, which occurred on the eleventh day, and soon became normal and has continued so since. She has had no anodyne since the operation. As a rule no anodyne is given unless the patient is exceedingly restless, as morphine or opium decrease the secretions, lessen the powers of elimination and so enhance the chance of septicemia. In every abdominal operation the injured peritoneum throws out a serous secretion, which in normal conditions is reabsorbed. If the secretions, however, have been interrupted, this is not so readily taken up, and affords an opportunity for the multiplication of any stray pathological germs which may have been left in the peritoneal cavity. If an ovaritis comes from gonorrhœa, remove both ovaries and tubes, even though but one seems to be affected; because the other organ if not actively diseased will later be the source of serious trouble. In the patient upon whom I have operated, it is quite probable that she had suffered distress from this organ, but that in the greater distress felt from the other, the symptoms from this one had been overshadowed, and only disclosed their character when the other had been removed. The experience of all operators demonstrates that when the disease exists sufficiently to justify the removal of one ovary the other should accompany it.

[1] Delivered at the Philadelphia Hospital.

Removal of Appendages for Pyosalpinx.

This woman is twenty-four years old. She has suffered for several months with pain in the pelvis. Upon examination a mass was found posterior to the uterus, which was recognized as the enlarged and adherent uterine appendages resulting from a pyosalpingitis, and two weeks ago the abdomen was opened and the left ovary and tube were removed. These were not found to be in the condition which was expected, although they were considerably inflamed. Examination of the opposite appendages, however, showed the tube to be curved around Douglas's pouch and firmly adherent to the peritoneal surfaces, with the ovary lying upon the opposite side. As this was enucleated and raised up, both ovary and tube were found to be filled with pus. The pus sac burst in its removal, permitting its contents to escape into the cavity; this was, however, flushed out immediately and a drainage-tube was inserted. The temperature within the next two days went up to 102°, and on the fifth day it had reached 103°; after which it gradually declined, and has now been normal for some days. As we feared that the contents of this sac were virulent, we immediately flushed out the abdominal cavity with hot water, and followed this with frequent irrigations with a sulphurous acid solution—an agent which is an excellent germicide and is less irritating than carbolic acid or bichloride solution. At this time there is still some evidence of irritation in the left groin, as is shown by pains down the front of the thigh, and more especially in the knee. This will have to be watched with care, as there is a strong tendency to phlebitis. A glass drainage-tube was removed at the end of a week and replaced by a rubber one, and the latter was gradually shortened until the whole of it has been removed, and the opening is now entirely closed. In a case in which there has been pus, do not be in too great a hurry to remove the drainage-tube, as the pus may collect in the lower part of the abdomen. The inflammation that occurs following the operation or about the pedicle after the infection of the silk generally used for its ligation, may keep up an irritation and cause a pus-secreting fistulous track and remain for some length of time—indeed until the ligature sloughs off and is discharged. For this reason the drainage-tube should be gradually removed, permitting the deeper part to close before the opening in the integument has done so. On account of the danger from the silk ligatures, I have in late operations been using the prepared chromicized catgut ligatures, and have found them much less likely to give rise to any subsequent irritation.

Operation for Pyosalpinx with Extensive Peritonitis.

This colored woman has been in the hospital for some time. She says her health was good up to six weeks ago, and since then she has experienced a great amount of pelvic distress, but from the inflammatory mass and adhesions that were found, I think her trouble must have been in existence a much longer time. This mass extended above the brim of the pelvis and held the uterus immovable. The pelvic contents felt as if they had been immersed in melted glue, which had subsequently become hard. There had evidently been a peritonitis. This affection was formerly called peri-metritis when confined to the pelvis, and the accompanying inflammation of the cellular tissue was called a para-metritis. Both of these names are unfortunate, as they do not explain the real origin of the trouble, which arises neither in the cellular tissue nor in the peritoneum, but in the tube and ovary. The inflammation of the cellular and peritoneal tissues is similar to that which takes place in the cellular tissue about the eye in a case of conjunctivitis. This inflammation of the tube and ovary may have been primarily local; I mean it may have originated as the result of cold or exposure during the congestion of these organs which takes place at or near the menstruation, or it may have come from a salpingitis, which was secondary to endometritis or vaginitis. If the latter, it has been most probably of specific origin. When this abdominal cavity was first opened it was impossible to determine the relation of anything within it. The pelvic cavity was filled up with a mass of exudation, gluing everything together and completely obscuring landmarks. The finger was pushed into the mass at a point where we would expect to find the uterus, the fundus of this organ was found and the tissue enucleated from it on either side. Tracing out to the left side, a large pus sac was found situated deep down in Douglas's pouch, closely adherent to the anterior wall of the rectum. Its walls were very thin and

were torn into in the effort to remove it. The sac could be barely reached with the ends of the fingers, and considering its close adhesion to the rectum, it was decided not to attempt its entire removal. A drainage-tube was inserted, placing its end in this sac. The oozing surfaces which had been torn up were mopped with a sponge wet with 1 to 4 parts of Monsel's solution. The abdominal cavity was thoroughly irrigated with quite hot water, and the abdominal wound was closed. The abdominal cavity was subsequently irrigated with a saturated solution of boro-glyceride every three hours, allowing as much of the solution to remain in the cavity as it would hold. In this way the peritoneal surfaces were kept pure by the presence of a disinfectant solution, and the probability of unfortunate adhesions was decreased.

I have shown you to-day, gentlemen, three patients of different conditions, in all of whom the operation was absolutely indicated. These cases were all operated upon on the same day, requiring two hours for the three operations. The last case is one which impresses upon us the amount of manipulation the peritoneal cavity can be subjected to without danger to the patient. The convalescence of this woman has been uninterrupted. Her temperature at no time exceeded 100°, and she has suffered less distress and discomfort since the operation was performed than she did during the weeks previously. This is a case in which I would have formerly closed up the wound without having attempted to interfere; yet experience discloses that these are the very cases which derive the most benefit from operative interference. Now in the after-treatment of patients it is important to endeavor to prevent unfortunate results from secondary inflammation and adhesions. You will ask how this can best be accomplished. Where extensive adhesions have been torn up, or there has been much pus, a drainage-tube should be used and the cavity should be frequently irrigated with a disinfectant solution. The solutions of carbolic acid and bichloride are likely to produce an irritation of the delicate epithelium of the peritoneum, leading to increased adhesion. The best disinfectant for this purpose is a solution of boro-glyceride, which serves as a disinfectant, is not irritating—as the glycerin has an affinity for the watery portions of the blood—increases the amount of transudation from the blood-vessels, thus unloading them, and by its presence in the cavity prevents adhesions. The cavity may be kept filled with the solution if necessary for two or three weeks. The rapid recovery of the patient from such an operation demonstrates clearly that the tube and ovary are the offending tissues, and that in the inflammatory condition, the pelvic cellular tissue and peritoneum are secondary.

The thought I wish to leave with you is, that these inflammatory conditions arise from the disease of the tubes and ovaries, and that consequently the terms peri- and para-metritis are misnomers, and that the correct pathology is better indicated by the term salpingo-ovaritis.

Vesico-vaginal and Recto-vaginal Fistulæ.

I expected to have shown you to-day a patient suffering with both vesico- and recto-vaginal fistula, but she unfortunately left the house yesterday. In the absence of the patient I will use these diagrams explaining such conditions. First I will say to you that the recto-vaginal fistula is one which communicates with the rectum and through which the contents of that viscus pass into the vagina. Where this form of fistula is present you should always carefully examine the rectum to determine whether any stricture is present. In the case I would have shown you, such an examination revealed a stricture, resulting from malignant disease of the rectum. In such a case you can readily recognize that no operation would afford any probability of relief, and an attempt to close the fistula would be absolutely contra-indicated unless it had been preceded by an operation upon the intestine, known as colotomy. The fistulæ of the anterior wall of the vagina are vesico-vaginal, urethro-vaginal and vesico-uterine. These terms are self-explanatory. These fistulæ are usually the result of injuries during parturition. The head of the child rests in the vaginal canal for a length of time, pressing upon its walls until their vitality has become destroyed. The fistula may not be apparent at first, but results some days later when the slough has separated. These fistulæ may be very small or quite extensive, involving the greater part of the vesico-vaginal septum. The fistula is usually very readily determined. In some forms of fistula we may have a continuous discharge of urine from the vagina and regular discharges from the bladder. This may rise from either

one of two conditions. The fistula may be so situated that only the flow passes into the vagina, the remainder is discharged into the urethra; or the vaginal wall may have sloughed in such a position as to open the ureter, from which the urine empties into the vagina, the other ureter continues to empty into the bladder. When a vesico-vaginal fistula is of very small diameter and cannot readily be discovered by inspection of the vaginal walls, it may be more readily determined by injecting the bladder with some colored liquid, such as milk or cochineal, and observing the point from which it makes its exit into the vagina. Where there is a continuous flow of urine into the vagina, or when such an injection is made into the bladder, it is found that the urine discharged into the vagina still remains uncolored, it is evident that we have to deal with a fistula of the ureter and not of the bladder. The condition of the patient with the parts continuously bathed with urine, is one of exceeding discomfort. The salts of the urine are deposited upon the external parts, giving rise to irritation of the skin, and an eczematous eruption greatly adding to her distress. Preparatory to an operation all cicatricial bands should be cut and tampons should be worn that will so stretch adhesions and the vaginal walls that the surfaces may be brought together without undue tension upon the sutures. This should be done some time before the operation. In performing the operation the patient should be placed in the lithotomy position or in either Sims' position or that of Bozeman. If the fistula be small and well down, the latter position will be the preferable one. In flushing the surfaces it should be done in such a way as not to injure the mucous membrane of the bladder, and the sutures should be introduced to the edge of the vesical mucous membrane without entering it. The introduction of the sutures through the vesical mucous membrane is likely to result in a fistula. The sutures should extend well out upon the angles of the wound on each side. The material for sutures may be either silver wire, silk-worm gut or thread. The first two are generally preferred. After the wound has closed the catheter should be frequently used. The catheter should be thoroughly disinfected and the same cautions should be exercised with regard to the vestibule and orifice of the urethra, lest some extraneous material should be carried into the urethra and bladder, giving rise to urethritis or cystitis, which may greatly complicate the convalescence of the patient. No vaginal injections should be used within forty-eight hours, lest the plastic exudation be washed off, decreasing the probability of a successful result. After this time disinfectant injections may be used. In cases in which the ureter is the seat of fistula, it may be reached by passing the Pawliks catheter through the urethra and an opening into the bladder, thus reaching the orifice of the ureter, then an incision may be made on each side of this and the edges may be freshened and the sutures introduced in such a way as to turn the orifice back into the bladder.

COMMUNICATIONS.

THE PROPRIETY OF OVARIOTOMY.[1]

BY J. H. KELLOGG, M. D.,
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I do not propose to undertake an exhaustive discussion of this question, my chief purpose being to combat the sentimental notions which exist among the laity, and to some extent even among the profession, against this operation. Among the laity there is a general prejudice against the performance of an operation for the removal of the ovaries, unless the patient has reached a point at which life is in so great peril that death is inevitable without an operation. One of the causes of this prejudice is undoubtedly the great fatality which has, until recent times, attended this operation, and it must be admitted that there is still room for dread of the operation, as one not infrequently sees statistics of operators which indicate a mortality of from fifty to seventy-five per cent., and a fatality even higher still has sometimes been recorded. But this prejudice will certainly give way when the public becomes aware of the fact that by the skilful employment of methods representing the most recent advances made in abdominal surgery by Tait, Keith, Bantock and others of the great ovariotomists, the proper preparation of the patient before the operation, and skilful nursing afterwards, the mortality may be reduced to so low a point

[1] Part of a paper read before the Twenty fifth Annual Meeting of the Michigan State Medical Society, 1880.

as three or four per cent. Indeed, one may say that, leaving out of consideration those desperate cases which, before operation, must be regarded as almost or altogether hopeless, the average mortality of ovariotomy may be fairly considered as not greater than two or three per cent. in the hands of competent operators. But so long as this operation is undertaken by incompetent surgeons, who depend upon the operation as an advertisement, whether the patient recovers or succumbs—if the patient dies, of course, it is the fault of the patient, and not of the operator—this operation will not be regarded by those who might be benefited by it, with that favor of which it is really deserving.

Ovariotomy may be justly said to be, when it has a fair chance, the safest of all capital operations, although undoubtedly demanding the highest degree of skill and judgment in its performance, and the best conditions possible to command. The surgeon who opens the abdominal cavity must be prepared to do anything from the removal of a simple cyst, the simplest of all abdominal operations, to the removal of the spleen, a kidney, or the entire uterus and its appendages, or even the splicing of an intestine. It is never possible to know absolutely in advance what one may encounter when opening the abdominal cavity; and in many cases the leaving of an operation incomplete is equivalent to signing the patient's death-warrant. There are no operations in surgery more trying to the surgeon's fortitude, patience and skill, and indeed not infrequently to his physical endurance, than an operation for diseased and adherent appendages such as are found in a large proportion of this class of cases. Often the ovaries and tubes are so matted together, and so completely incorporated with the tissues of the uterus, intestines, bladder and abdominal walls, that it seems impossible to locate them, much less to separate them from the structure to which the inflammatory action has attached them. It is in many of these cases necessary to actually dig and tear the diseased structures from the mass of inflammatory exudate in which they are embedded, an operation which requires no small degree of care and dexterity to avoid making a rent in the rectum or colon, or tearing into some other viscus. In spite of every possible precaution this accident may sometimes occur, and then the surgeon must be prepared to repair the damage he has done, in a rapid and efficient manner.

The time will undoubtedly come in this country, as is already the case in England, when public sentiment as well as the average professional conscience, will have developed to such a degree that no physician will be allowed to undertake abdominal surgery who has not made a careful special preparation for this particular line of surgical work, and who is not prepared to give to his patients the benefit of not only the best methods of operation and a high degree of manual dexterity, but the proper conditions for after care, which are as essential as the skilful performance of the operation. It must of course be admitted that emergencies may occur in which the abdomen must be opened at once, and in which the delay occasioned by bringing a specialist to the patient, or the patient to a specialist, would be more hazardous than the undertaking of the operation under whatever disadvantageous circumstances may surround the patient. Under these circumstances, the surgeon must, of course, do his best, although in many instances, the unaided efforts of nature will give the patient a better chance for life than efficient or bungling surgery.

Another cause of the popular prejudice against ovariotomy, and which is possibly still shared to some extent by the profession, is the incorrect notion that by the removal of the ovaries a woman is unsexed, that she loses her natural womanly attributes, and becomes masculine. The careful inquiries of Tait and other ovariotomists have thoroughly demonstrated the fallacy of this erroneous notion. It was known even to the ancients that the removal of the ovaries in a female, or the testicles in a male, was practically without effect upon a mature individual, except to render motherhood or fatherhood impossible. The sexual sense and the ability for sexual cohabitation remain unimpaired, or may even be increased by removal of the ovaries as in cases of dyspareunia. Mr. Tait stated to me with very great emphasis, that removal of the ovaries does not in the slightest degree unsex a woman, and that in numerous instances there had been reported to him a marked increase in the sexual appetite, rather than a loss in this particular.

It is apparent, then, that if a function so entirely dependent upon the sexual organs is not in the slightest degree impaired by this operation, it cannot possibly exert any pernicious influence upon the general system. If the operation is performed upon

an undeveloped individual, that is, a person who has scarcely attained the age of puberty and in whom the sexual functions are not yet fully established, the case is different, although among some Eastern nations with whom the practice of making eunuchs at one time prevailed, the operation was not infrequently carried to the extent of amputation of the external organs, as it was found that a simple removal of the testicles did not produce complete sexual disability. I was consulted some time since on account of a nervous affection, by a man of thirty years, whose testicles were removed some five years previous. He is a married man and informed me that no symptoms of sexual incompetency had appeared.

The purpose of removal of the ovaries in other cases than those of morbid growths of the organs may be either to get rid of diseased ovaries or tubes, which have become the seat of constantly recurring inflammations, or to bring about prematurely the change of life by stopping menstruation, and thus to secure the cessation of the growth, or the disappearance of atrophy, of a fibroid tumor of the uterus. That the removal of the ovaries and tubes will accomplish these results has been abundantly proved by the experience of Hegar, Tait and numerous other operators, and I might present, in addition, cases in my own practice, since the performance of which ample time has elapsed to leave no possible doubt of the permanence of the results; as, for example, the case of a young woman sent to the Sanitarium by Dr. French, of Ypsilanti. The operation was performed nearly five years ago, the occasion for it being a large fibroid growth of the uterus, which gave rise to almost constant hemorrhage. The hemorrhage, together with continued vomiting, had reduced the patient to a state of inanition which rendered death probable within a few weeks if some relief was not afforded. Within six weeks after the operation the tumor had diminished to about one-half its former size, the hemorrhage had ceased, the patient was relieved of pain and nausea and was gaining rapidly in flesh. More than a year ago I received a letter from her making application for a position as an employé in the hospital, the patient saying she was enjoying very comfortable health.

There are, undoubtedly, thousands of women leading lives of continued invalidism and great suffering who should be afforded relief by this operation. The woman who is carrying about in her pelvis a Fallopian tube filled with pus, or whose ovaries and tubes have been damaged by a salpingitis of gonorrheal or puerperal origin, is in constant danger of death through the rupture of a distended tube and resulting peritonitis, incurring at every menstrual period the risk of a renewal of the inflammatory action—and should she become pregnant—the risk of almost certain death from puerperal fever. Not understanding her condition, she goes about from one specialist to another, is treated by pledgets, pessaries, powders and every sort of internal and external application, without other relief than simple palliation. In many instances the suffering at the menstrual period is so great that the morphia habit is acquired, or the habit of using alcoholic stimulants to the extent of inebriety. A number of cases belonging to each of these classes have come under my professional care. In many instances the patient's medical adviser is not himself aware of the actual state of things, and treats his patient for neuralgia, chronic peritonitis, malaria and a variety of other maladies, either in conjunction or succession, never once suspecting the real nature of the difficulty. Several patients upon whom I have operated have gone through exactly this experience. The gratitude expressed by them on being rescued from a state of constant misery and uselessness, is certainly an ample justification of the operation and no small compensation to the surgeon for his efforts. Recently a patient upon whom I had some months ago performed ovariotomy for the relief of chronic salpingitis and frequently recurring hematocele of the right ovary, said to me that she could not be induced to return to her old condition for a fortune. Life was then worth nothing to her. Now she has before her the prospect of a happy and useful life, uninterrupted by continually recurring painful and dangerous illnesses. Why should such a patient be encouraged to continue under hopeless and often worse than useless measure of treatment? A patient whose condition is such as to demand the removal of the uterine appendages is usually in a sterile condition through occlusion of the tubes. In married women there is very frequently a history which indicates the occurrence of a salpingitis following an ordinary confinement or a miscarriage some years previous and no pregnancy since. It is something more than simply an error—it

seems to me to be absolutely criminal—to encourage such patients to continue under prolonged treatment, month after month, and year after year, entertaining the vain hope that they may again become pregnant, and thus be cured of their maladies by pregnancies. I have had more than a score of these cases in which women were longing for an impossible pregnancy, not from the impulses of motherhood, but seeking it as a therapeutic measure. Many of these cases may be made comfortable by rest in bed, galvanism and other measures; but a certain number will remain, to whom nothing short of an operation for complete extirpation of the diseased structures will bring relief.

Tait and others have called attention to the fact that pyosalpinx, and similar conditions of the appendages, are not infrequently the cause of fatal puerperal fevers. The pressure induced by confinement causes a rupture of the sac, and as a result a general and fatal peritonitis is set up. In six cases of death from puerperal fever, occurring in one of the English lying-in hospitals, the disease was found to be due in five instances to this one cause.

Not infrequently a chronic inflamed ovary is, by the local treatment applied, converted into a pyosalpinx or an abscess of the ovary. I have met several cases in which the patient's condition has been thus greatly aggravated by treatment. Dilatation of the cervix, division of the cervix, repair of a lacerated cervix, applications to the cavity of the uterus and even the placing of a pessary, have been sufficient in various cases to produce this result. It has indeed happened that the force employed in efforts to reduce a retroverted uterus has resulted in the rupture of a distended tube, leading to fatal peritonitis. In fact, in observing the thinness of the cyst wall, and the readiness with which rupture occurs in operation for the removal of the appendages in cases of this kind, I have been led to wonder that fatal accidents of this sort are not much more frequent than they are. Considering, also, that the fatality of pyosolpinx when left to itself, is fully twenty-five per cent., whereas good surgical methods may secure ninety-seven per cent. of recoveries, while in cases of cirrhosis of the ovary, chronic ovaritis and similar cases, the death-rate should not be more than one or two per cent. under the most favorable conditions, why should a woman be encouraged to continue in a state of chronic invalidism, a slave to invalid habits, continually dependent upon a doctor, often a prey to charlatans, and carrying about with her a source of incessant suffering and continual peril to life, which might be removed by an operation which involves far less risk to life than six months of living in the manner described? To speak of the removal of the appendages in a case of this sort as a mutilation, is as absurd as to apply such a term to the removal of a gangrenous limb or a cancerous breast. Cirrhotic ovaries in which the normal ovarian tissue is largely replaced by dense, contracting, fibrous tissue, are often the cause of constant and agonizing pain, which is curable only by removal of the diseased organs. Dr. Tait has called attention to the results of what he calls exanthematic inflammation of the ovaries, as a complication of scarlet fever, small-pox and other eruptive disorders. These conditions are often the cause of constantly recurring pelvic inflammations, sometimes at each menstrual period. Sometimes, also, we find in these conditions the true cause of an intractable sciatica, a spinal irritation, an incurable dyspepsia or a chronic neurasthenia which baffles the skill of the neurologist. There are few men who would not immediately insist upon the removal of diseased testicles which they know to be functionally useless. Why, then, should women be encouraged to nurse with such care, and to cling with such tenacity to ovaries long since capable of no other than dangerous and pernicious activity, and the removal of which may be accomplished so safely and with so certain a prospect of complete relief from maladies otherwise irremediable? These are questions, it seems to me, every intelligent physician should ask himself, when brought to deal with patients of the class referred to.

TREATMENT OF CHRONIC SUPPURATION OF THE MIDDLE EAR.

BY GEORGE CLEARY, M. D.,

DENVER, COL.

Dr. MacEwen, of Glasgow, has recently said that "a person suffering from a chronic suppuration from the ear was in a position of one with a charge of dynamite in the interior of the head, which might explode disastrously at any moment." The dangers to

life from this disease are cerebral abscess, meningitis, pyemia and hemorrhage. As to the first mentioned complication, it is now generally believed that a suppurative process in the ear is necessary for the production of an abscess of the brain. Fatal hemorrhage may occur from the internal carotid, because of caries of the canal in the petrous portion of the temporal bone through which the artery passes, also from destruction of the bony wall that separates the mastoid process from the lateral sinus, and again from the jugular vein by the breaking down of the thin plate of bone which forms the floor of the tympanum, separating the latter from the vein.

Having briefly stated the dangers to life from this disease, I wish to say a few words with reference to its effects upon the hearing. There is no affection of the middle ear in which the auditory apparatus is so jeopardized as it is in chronic otorrhœa. Not only the whole middle ear is involved, but also, in almost every case, the membrana tympani and very often the external auditory meatus, the labyrinth and the osseous walls of the middle ear. It is a common occurrence to find large rents in the drumhead which only too often remain permanently open or the entire membrane may be swept away, with loss at the same time of portions of the ossicles or the whole of them. With such dangers as these, it is easy to understand the amount of permanent defect of hearing likely to result. This will explain all the more clearly the reason why we should be solicitous about an acute suppuration, lest it becomes chronic. Chronic suppuration very often follows a neglected acute otitis, especially when the nutrition of the general organism is disturbed by other affections.

But the cases of acute suppuration which are most apt to become chronic are those which arise in the course of the acute exanthemata. The reason for this is the attention demanded by the greater malady, to the neglect of the apparently lesser one. I know I am at variance with many in this respect, but I can so far truthfully say that I cannot recall even a single case (where I had the management, in a reasonable time after the occurrence of the suppuration) which did not go on to complete recovery. I mean by this not only the arrest of the discharge, but the restoration of the hearing as well. When the disease has existed for months or years and only then comes under our observation, our main object will be to permanently arrest the discharge, the hearing being a secondary consideration; since we can, as a rule, do very little towards its restoration. Still the laity consult us usually with reference to the existing deafness, evidently very little concerned about the discharge, and not willing to look upon it in the light of a very dangerous symptom. Unfortunately, very often the hearing becomes worse after the complete cessation of the discharge than it was before, while at times one may be able to effect some improvement in the condition. This, of course, will depend upon the amount of disorganization produced by the long-continued inflammatory process. We, however, desire to remove the "dynamite," so to speak, and give the patient a chance for a longer, a more healthful and a happier life; we aim to restore his mental and physical equilibrium as much as possible.

It is impossible to give even an approximate idea of the time required to cure a case of long-standing otorrhœa without first making a trial. The reason for this is, that we cannot tell exactly the pathological conditions existing, or the amount of surface involved. A cure may be accomplished in from six weeks to one or two years. Again, you will fail, despite your best directed efforts, but you will succeed in the vast majority of cases, provided perseverance and good management be maintained.

The treatment required will be both local and constitutional. Any dyscrasia will have to be seduously attended to while the local treatment is being carried out; the latter, however, will engage the principal share of our attention. In order to carry out the local treatment, thorough cleansing of the parts is indispensable. To do this properly a head mirror and an otoscope will be necessary, next a syringe having a good-sized barrel with a long, slender nozzle and capable of being manipulated with one hand. The best that I know of is Pomeroy's ear syringe. Lastly, plenty of plain, warm water is needed. It must not be forgotten that pus may be hidden away behind the drumhead which the syringe alone may not dislodge. In order to do this, a few strong inflations with the Politzer bag will usually be necessary, which will generally force these lagging particles into the external meatus, whence they can be readily washed out by the syringe. Cleansing of this kind alone will sometimes cure a long-standing case of otorrhœa; but in the great majority

of cases it will be necessary to supplement this with the use of other agents before one can relieve the infiltration of the mucous membrane and arrest the suppuration. In many cases, even after the use of powerful injections of water, tough mucous plugs and inspissated secretions cling firmly to the underlying tissue, or masses of epidermis lie in the tympanum, forming flakes which are very difficult or impossible to remove by the syringe. In such conditions, the delicate silver ear probe should be used so as to loosen or dislodge them, or it may be necessary to pour a few drops of glycerine into the ear, or, as I prefer, a 50 per cent. solution of boro-glyceride, allowing it to remain in over night; when with the combined use of the probe and syringe next morning there will be generally little difficulty in getting rid of such bodies. It is plain to be seen how necessary it is to remove these deposits, for by so doing you free the inflamed parts of all such sources of irritation, while at the same time you render the diseased surface capable of being brought into direct contact with whatever medicine you may choose to employ. Having now thoroughly cleansed the parts they should be dried well with cotton secured on a probe. A convenient probe for this purpose may be made out of a straightened hair-pin, roughened with a file for a half inch of its end so as to retain the cotton twirled upon it.

The ear being now ready for special medication, the next question will be which, out of the numberless remedies proposed, we are likely to find the most efficacious. I shall first mention some of those which, from personal experience, I have found to be the best. Pure astringents, such as zinc, copper, lead, etc., have always occupied a prominent place in the treatment of otorrhœa. I have long since discarded them for two reasons: (1) because I have had better results with other agents, and (2) because they so often form with the albumin of the muco-purulent secretions, combinations soluble only with difficulty, and as a consequence of their use there will be formed firmly-adhering deposits in the middle ear which cannot be dislodged even with the most forcible injections, or they may lie in the depressions of the tympanum, where they become hard to remove even with a probe, or they may be entirely beyond the reach of the latter. Antiseptics of late years have occupied a very prominent part in the treatment of this disease for their antiseptic properties mainly. The agents mostly used in this class of drugs are boric acid, either dry or in solution, the bichloride of mercury in solution, and the peroxide of hydrogen. As to these agents I am compelled to say that they have disappointed me. Others may have a different story to tell, but I do not believe in their utility in this class of cases, apart from their cleansing properties. The value of this latter quality, however, I most heartily admit. Under the administration of these remedies there will often be an apparent improvement, namely, a lessening of the discharge or a stoppage for a time, and hope will arise perhaps that an obstinate and dangerous affection is about to yield; but to your disappointment you will too often find the discharge confronting you after months of this kind of treatment. The peroxide of hydrogen, however, I have found a very valuable aid in certain cases as a most potent cleanser, especially in those cases where there is pus hidden away in the cavity of the tympanum which cannot be reached either by syringe or inflation. It is also valuable in those cases where the syringe seems to act as an irritant or is badly borne, as we find occasionally to be the case. Under such circumstances the peroxide of hydrogen can replace the use of that instrument to a great extent. By instilling five or six drops into the ear with a dropper and churning it by means of a little cotton on a probe, repeating this process until the fluid returning from the ear no longer effervesces, then drying the parts, the ear is made ready for any special application you may desire to make.

Now, with regard to special applications. I have for some time past been in the habit of confining myself almost exclusively, in the course of suppurative processes in the middle ear, to one of three methods, according to indications which will be explained further on. They may be designated respectively as (1) the acid treatment, (2) the alcohol treatment, and (3) the nitrate of silver treatment. I do not pretend by any means to be offering anything original, but am simply endeavoring to emphasize the fact of their respective merits when used with proper discrimination.

The acid treatment is applicable to those cases more especially where we have to deal with caries and necrosis, a condition which is by no means a rare complication, and which when present renders the disease the most troublesome to treat of any form of

otorrhœa. It is well known that mineral acids extract the earthy substance from dead bone, and relying on this fact we aim in those cases of purulent otitis by direct application of the acid to decalcify the diseased bone and so render it absorbable. The diagnosis, however, of necrosis in middle ear affections is often very difficult, owing to the absence of positive signs. You will only too often not be able to get the grating symptom with the probe, because the dead bone may not be in a visible spot, or it may be entirely inaccessible. A very good evidence of the pressure of necrosed bone will be the reappearance of granulations where they have been previously destroyed; but one of the very best evidences of necrosis will be the persistence of the discharge in spite of careful and prolonged treatment. We are indebted to Dr. Bull, of Christiana, Norway, for a very valuable article, which can be found in the *Archives of Otology* for January, 1889, entitled "The Action of Acids in Caries and Necrosis of the Temporal Bone." The best acids for this purpose are either the nitric or muriatic. Four or five drops of a two to four per cent. solution of either one of these acids are to be dropped into the ear and allowed to remain for half an hour. These instillations may be repeated once, twice, or thrice a week, according to indications, the interim being occupied with proper cleansing with the second agent mentioned, viz., *alcohol.* I have had also very gratifying results in those cases attended by polypoid growths and granulations. The action of alcohol on these exuberances is often very striking, and on the disease very remarkable. These growths, when visible or accessible, should be removed as much as possible by the snare or curette, under cocaine or ether, followed by the alcohol treatment. Often granulations, though present, may not be visible because of the smallness of the perforation in the drumhead, rendering thorough inspection of the drum impossible, or they may be inaccessible to instruments. In a large proportion of cases of this class, whether we are able to use instruments or not on these growths, by the persistent use of alcohol a marked change for the better will soon be apparent and a permanent arrest of the discharge results. As to its mode of administration: after cleansing the ear as already described, pour five or six drops of absolute alcohol into the ear, the patient lying down and retaining it for from fifteen to thirty minutes. It is advisable at first to use a 50 per cent. solution until the patient becomes accustomed to its use, when it can be gradually increased to full strength. It may be used once a day or oftener. Another advantage which the alcohol possesses is that it is a powerful germicide, absolute alcohol destroying vitality in exposures of four to twelve seconds; 90 per cent. solution in from twenty-three to thirty seconds, and 66 per cent. in from ten to fifteen minutes.

The remedy, however, with which I have the greatest success and on which I rely in most cases, is nitrate of silver, whether there be caries of the bone, granulation tissue, or simple chronic inflammation of the mucous membrane of the tympanum. At times, no doubt, this remedy, no matter in what strength used, seems to aggravate the disease, and more especially in those cases in which there is a tendency to the production of lymphoid elements, but even such are very often favorably influenced by it. When, however, increased irritation and more abundant discharge is produced, it should be discontinued, and reliance placed on some other remedy. Dr. D. B. St. John Roosa, in his work on the ear, says that silver is of no value in this disease, unless used in the strength of forty grains to the ounce. My experience has taught me differently. We are no doubt obliged to depart from set rules at times, according to the nature of the case, and in this disease we are occasionally compelled to use very strong solutions—sometimes as high as a saturated solution, before attaining our object; although, in my opinion, these are seldom called for. I usually depend on either a two or four per cent. solution, more frequently the former than the latter.

Nitrate of silver is a powerful astringent and escharotic of moderate strength, and a most potent antiseptic. As to its quality in this latter respect, it may be assigned to a position near the head of germicidal remedies, since one part to ten destroys vitality in exposures of four seconds; one to fifty in exposures of eight seconds; one to one hundred in twelve seconds; one to one hundred and fifty in one-third of a minute; and one to one thousand in four minutes. We find an agent, therefore, in the nitrate of silver, combining essentials requisite in almost every form of chronic suppuration of the middle ear. This remedy should never be entrusted to the laity; the surgeon alone should make each and every application.

The mode of applying it is as follows: Having first cleansed and dried the ear, instil with a dropper about five drops of a two or four per cent. solution, commencing with a two per cent. usually, the patient's head being held to one side. Allow it to remain in the ear for about five minutes, unless an uncomfortable feeling be produced before the expiration of that time, in which event the ear should be at once syringed with plain warm water. It is not necessary to neutralize the solution by the use of salt and water, simply injecting a small quantity of warm water after each application will be sufficient. Afterwards dry with cotton, and, as a protection from all outside influences, push a little cotton into the meatus. This treatment should be carried out by the surgeon at least three times a week, until a decided impression is made on the disease, when the number of applications may be gradually lessened; the patient or his attendant in the intervening time cleansing the ear as well as may be, according to instructions. A cure should not be expected in a few weeks or even months, especially when we consider the length of time some of these cases have existed. Still we have the gratification at times of permanently arresting a discharge which has existed for the best part of a patient's life; while other cases will yield only after the most patient and painstaking care, occupying perhaps years.

As an illustration of the former kind, I would mention the case of a young girl, sixteen years old, who had had an otorrhœa since she was two and a half years old. Two applications of a two per cent. solution of nitrate of silver arrested the discharge, and up to the present time, now over a year, no return has taken place. In another case, on the contrary, which I dismissed about six months ago, the disease resisted for two years almost continuous treatment and the use of every known remedy before it finally yielded.

In concluding this article, I wish to make the following points: Prepare your patient in the first place for a prolonged treatment and the absolute necessity of three visits a week. The strict observance of the latter should be insisted upon by the physician. Next, on the part of the physician, should be the thorough cleansing of the ear and attention to every detail on each and every visit. And, lastly, the use of either one of the three remedies mentioned according to indications present as outlined previously. This offers a definite course of treatment, by the observance of which I am convinced that very many cases, which might otherwise be considered incurable or only fit for a mastoid operation, will be found amenable to treatment.

TWO HUNDRED CASES OF OBSTETRICS WITH SOME POINTS OF MANAGEMENT.

BY J. W. HUFFMAN, M. D.,

HASTINGS, NEB.

In the following article it is the intention of the writer to give a record of two hundred successive obstetric cases occurring in a country practice, and also to indicate his method of treatment or manipulation in some of the cases which required the intervention of other aid than that furnished by nature.

As all doctors well know, the majority of cases of child-birth do all right if left entirely to themselves; so in the cases occurring in my practice, the most of them terminated successfully within the prescribed limit of from twelve to fifteen hours, without any outside aid excepting that expression of assurance to the patient and friends of a favorable condition of the case and confidence in a propitious termination.

In the two hundred cases there were one hundred and ninety-four head presentations, one shoulder and five breech. The arrangement of position of head presentation being wholly arbitrary, four positions are assumed, viz., first, occiput to left anterior; second, occiput to right anterior; third, occiput to right posterior; and fourth, occiput to left posterior. It should be stated here that these cases occurring in a country practice, some of them eight or ten miles distant from my office, many were not seen until in the last stages of labor, and some not until the child was born, so that a correct record of all the cases cannot be given. But, selecting 150 cases of head presentations in which labor was observed from beginning to end it is found that 123 cases were of the first position, 3 of the second, 23 of the third and 1 of the fourth. Of the 23 of the third position, 17 rotated in such a manner as to terminate with the occiput under the pubes, or in other words became a second position. The one

in the fourth terminated as a first. Regarding those positions known respectively as occipito-pubic and occipito-sacral, I believe that they are generally changes or rotations from one or the other of the four positions noted, although I would not deny their occurrence as original ones; but I think they are rare. In six of the occipito-posterior positions the occiput rotated into the hollow of the sacrum; four of these were delivered without so much difficulty—although greater than any of the occipito-anterior positions, and fortunately were not followed by any serious results; but the remaining two were the gravest which have occurred in my experience, one requiring embryotomy and both being followed by a train of bad results which will require years to obliterate. As anterior rotation occurs in the majority of these cases the advice given by Professor Penrose is timely: to wait until the head reaches that part of the pelvic cavity where rotation takes place naturally, then by proper pressure on the side of the forehead and occiput or the use of the straight short forceps assist nature in her efforts.

The case of shoulder presentation terminated favorably, resort being had to podalic version, which was accomplished without so much trouble. In this instance the circumstances went to prove that the child was born prematurely, possibly about the end of the eighth month, it being small and poorly developed.

Of the five cases of breech presentation two terminated fatally to the children. The death of the first one was attributed at the time largely to the officiousness of a midwife, who ruptured the bag of waters very early in the labor; but where the second fatal case occurred, about eighteen months afterwards, the presentation being recognized quite early in labor and skilled assistance being obtained to guide the case to a successful issue, the mantle of charity was thrown over the error of the midwife. In the first instance death was in all probability due to placental separation while the head was locked in the pelvic cavity, and in the second case death took place from pressure upon the cord. If any rules could be formulated for the management of breech presentations from the observation of so limited a number of cases (five) they would be to keep the patient as quiet as possible during the first stage and never to rupture the bag of waters. Believing that an oblique position of the head at the superior strait offers the most favorable conditions for a successful delivery in breech presentations, our efforts should be directed during the second stage to a rotation of the proper hip and shoulder into the hollow of the sacrum in order to bring the head obliquely at the superior strait, and apart from these efforts very little else should be done until the head offers at the brim of the pelvis. To facilitate the passage of the head through the pelvis, the patient should be directed to make use of all the voluntary bearing-down power which she possesses, and, having an assistant to support the body of the child if necessary, the attendant should endeavor to supplement this force of the patient by passing two fingers up to the root of the nose and then pressing or pulling down, the fingers of the other hand in the meantime being placed beneath the occiput as a kind of support. This maneuvre will generally flex the head on the chest and may deliver it; but where considerable force is needed, it will be found insufficient for its extraction. Then the first and second fingers of one hand should be slipped into the mouth, the fingers of the other hand should be hooked over the shoulders, and downward traction should be made; while an assistant carries the body of the child backwards over the perineum. As the head descends, the feet should be carried forward over the abdomen of the mother.

In this way I succeeded in extracting the head with considerable facility in the three favorable breech cases which I had. All of these were, however, occipito-anterior positions. Where the occiput lies behind, the child should be carried forward and upward while traction is made as before, so as to force the occiput over the perineum. Another plan recommended by some, but never acted upon by me, is to place the first and second fingers of one hand in the mouth of the child and to make traction upon the lower jaw, while at the same time the other hand grasps the head of the child through the abdominal walls and presses downward in a line with the axis of the inlet of the pelvis. An important element of success in all these cases will be proper flexion of the head, and unless that is obtained at the outset much of our effort will be misdirected. It being essential that delivery of the head should be accomplished very quickly the attendant should have all his methods well in hand and should follow them up systemati-

cally, as indecision or vacillation for two minutes may result in the loss of the child. The length of time that our efforts should be directed towards manual extraction must be determined solely by the exigencies of the case. Generally if four or five minutes fail a resort to the forceps should be had.

Regarding the management of the perineum in labor, my plan has been of late to let it severely alone. I am fully aware that in this I am disobeying the teachings of eminent authority. But if the accoucheur is to do something—what? For an answer to this, a quotation will be made from Professor Goodell: "On the Management of the Perineum During Labor" [*American Journal of the Medical Sciences*, January, 1871]. "To sum up, then, there are those who make pressure upon the perineum to retard the head; those who make pressure to accelerate its advance; those who deny that any such effects can be produced; and those who conscientiously use support because something must be done. Again; there are those who direct all the pressure at the fourchette; others who reprehend this, and as carefully guard the posterior perineum; and yet others who will not touch the perineum on any account. Further, there are those who push the perineum backwards; and those who, for equally plausible reasons, push it forwards. Some dilate the sphincter vaginæ; some the sphincter ani; and some who plug it up. Some place their hands transversely across the perineum; some longitudinally, with the fingers looking downwards; some attack it with their knuckles. Some scoop out the head with the rectis; others drag it out by the ears; and yet others who rely on the forceps. Finally there are those who use the right hand, and those who swear by the left hand. Some who advocate a folded napkin; some an unfolded napkin; and others again who frown down on all napkins folded or unfolded."

In this array of confusion we learn that each one does something, but we are as far from knowing what is the particular thing to do as we were before. The necessity of supporting the perineum in labor has the sanction of time and authority, two things hard to combat, yet when we come to inquire into the results we find that either the support has not been well rendered in many instances or that the perineum will occasionally rupture under any and all methods of support. And when we examine into the various causes of perineal rupture we find but little argument for prevention by any manipulation of the perineum which we may essay. Among the various causes enumerated are abnormal shape and size of pelvis and vaginal passage, malpresentation or position of child, excessive development of child or of its parts, too great intensity or frequency of pains, abnormal condition of perineum as regards rigidity and dilatability, smallness of vulvar orifice, improper use of instruments, the effects of none of which, as we can see, could be neutralized by pushing on the perineum either up or down or by pulling it either backwards or forwards.

But if it does no good to support the perineum, will it do no harm? Is it a treatment whose effects are evil? I think not. Take a case in which the head is large, the pains strong and frequent, the vulvar orifice small and the perineum stretched to its utmost, then attempt to manipulate the perineum by any method you please, and what is the result? The pains generally become stronger, the head is forced through and there is a laceration, either great or small. You have done the very thing you sought not to do. It is sound obstetrical doctrine to make as few examinations or manipulations as possible. They will excite reflex uterine action. Therefore where there is danger of perineal laceration, any unnecessary manipulation about that structure should be avoided; the labor pains should be restrained by the use of morphine and everything should be done to retard the labor as much as the urgency of the case will allow. Where there is any improper position of head or presenting part, it should be corrected. Here the forceps can be made useful sometimes, both in rectifying a malposition or in retarding the advance of the head; and one should not hesitate to use them if he thinks he can accomplish any good thereby.

While I oppose perineal manipulation for the purpose of support, in the common acceptation of the term, yet I recognize the fact that there are certain cases of labor which can be materially aided in the way of correcting position, or by assisting rotation, or by what is known as the shelling-out process, in which these manipulations (often to be conjoined with rectal manipulation) are useful and necessary. But they are not performed with a view of strengthening an

alternated perineum or increasing the power of its tearing fibres.

In ligating the cord I wait until the child breathes vigorously or placental pulsation ceases; then two strings or tapes are tied around the cord an inch or so apart, the one nearest the child distant about two or two and a half inches; after which the cord is cut between the two ligatures.

After the child is born pressure should be made over the uterus to secure its contraction and the expulsion of the placenta. In the two hundred cases the writer had very little trouble with the delivery of the placenta. The only case giving rise to much trouble was one in which hour-glass contractions of the womb occurred. The treatment consisted in the use of an anæsthetic, the peculiar form of contraction giving way before the woman was wholly unconscious, and the placenta extracted.

SUPPURATION OF GALL BLADDER. CHOLECYSTOTOMY; RECOVERY.[1]

BY J. W. KESTER, M. D.,

BLACK EARTH, WIS.

Mrs. S., of Marksville, Wisconsin, 52 years old, the mother of fifteen children (fourteen living and the youngest five years old) was menstruating every two or three weeks until January 1, 1890. During the last months of her menstrual period the flow was very copious and accompanied with much pain. Four years previous to this date the patient was yellow and sick; her urine was yellow and her stools ash-colored. She has looked yellow at different times since. She complained all last winter of pain in the right side and a general failure of health, with frequent chills and bowels generally constipated, but she has had diarrhœa during the last three weeks. Three weeks before this date the patient had a severe vomiting spell which lasted five days, ejecting a greenish bitter fluid. She had noticed a slight swelling over the crest of the ilium for some time previous, but now finds a swelling in the right lower abdominal region.

I first saw Mrs. S. April 30. She complained of pain and tenderness in the right iliac and lumbar regions. Her pulse was 120; her temperature 102°. My diagnosis was acute suppurative inflammation. I gave quinine and iron, and an opiate to relieve pain. I advised consultation with Dr. Jackson, of Madison. May 1, I saw Dr. Jackson, and we agreed that an exploration was necessary. I prescribed castor oil to move the bowels and a general and thorough bath. May 2, I saw the patient for the second time, being accompanied by Dr. Jackson. The bowels had moved twice the same morning. The woman's cheeks were flushed; her pulse was 100, quick and wiry; her respirations 22; her temperature 99°. She complained of great pain and tenderness in the same region as before. Examination revealed tumefaction in the right inguinal and hypogastric regions, extending upwards into the lumbar and umbilical regions. Swelling was about the size of a large cocoanut, with a doughy, non-elastic feeling, excepting at two points where fluctuation could be felt: one point in the centre of the right inguinal region, the other at the right and above the os uteri.

Dr. Jackson and I agreed as to the previous diagnosis in regard to acute suppuration, but were somewhat uncertain as to the precise organs involved. We were also agreed as to an exploratory incision. I gave a hypodermic injection of morphia and atropine and put the patient under chloroform; cleansed the whole field of operation with soap, turpentine and water, shaved pubes, etc., and with antiseptic precautions did the following exploratory operation. I introduced a large-sized aspirating needle into the most prominent part of the tumor, and through it obtained a little pus. Dr. Jackson then made an incision of three inches downwards and inwards in the line of the fibres of the external oblique muscle. Through this between twenty and thirty ounces of pus escaped. Examination with the finger revealed a cavity with hard thick walls on either side with diverticula or sinuses extending in various directions. A rubber catheter introduced would penetrate upwards and backwards many inches. At the bottom of this cavity lay, as if in a nest, a number of small hard bodies which could be felt by the finger, and upon their extraction by means of the scoop, aided by a free irrigation of a solution of boric acid, proved to be gall stones. In all fifty-three were removed, and probably others were lost. The cavity was then freely flushed with a boric acid solution, curetted, and swabbed

[1] Read before the Central Wisconsin Medical Society, June, 1890.

out with sponges dipped in a weak bichloride solution; much broken down tissue and débris being thus removed. No bile or feces were discovered. But from the bottom of the cavity was extracted a white hair of several inches in length, a part of the hair being broken off and left in the tissue. A large rubber drainage-tube was introduced and secured. The incision in the abdominal walls was secured with five sutures; an antiseptic dressing of iodoform, sublimate gauze and absorbent gauze was then applied. The calculi removed ranged in size from a dried pea to a large hazel-nut, dark olive in color, intermingled with a golden tint.

On May 3 the woman's temperature and pulse were normal. On May 4 I dressed the wound, washing out the cavity with a boric acid solution. At this time I washed out three more stones, and the remainder of the hair. From this time on the patient made a slow but steady recovery, and she has gained considerable flesh, and is growing quite stouter. The deep abdominal silk sutures still remain and their ends hang out through small button-holes. With this exception the wound is healed and has been so for some weeks. I am at present having daily traction made on the sutures. They are gradually giving way and in time will become loose.

PERISCOPE.

Use of Dog's Skin in Skin-Grafting.

Dr. M. E. Van Meter, of Red Bluff, Colorado, reports in the *Annals of Surgery*, August, 1890, the case of a boy, fourteen years old, who in April last sustained severe and extensive burns, and under treatment had accomplished the healing of them all except certain granulating regions beneath the chin and lower jaw, and the right arm from elbow to fingers. Upon these surfaces skin grafts were finally placed. For the neck, grafts were obtained from the arms of the father and brother of the patient; but for the arm, grafts were taken from two young puppies of the Mexican hairless breed, whose soft white hairless skin seemed to offer itself for the purpose with good prospect of successful result. The result was all that could be desired. The puppy-grafts proved to be superior to the human grafts; a greater proportion of them "took," and their subsequent rate of growth was much faster.

This use of puppy-grafts was original with the reporter of the above case, and when he communicated it he was unaware that any similar case had been recorded. But in the *Lancet*, March 15, 1890, however, a similar case is reported by Mr. Alexander Miles, of Edinburgh, of which a full account was given in the MEDICAL AND SURGIGAL REPORTER, May 31, 1890.

The *Annals of Surgery* gives an abstract of the case (crediting it to "Dr. Milro," however), which may interest those who have not seen the original report. A boy, ten years old, presented an extensive ulcer on the left leg, resulting from a burn. The entire surface was covered with healthy granulations, but there was not the slightest attempt at cicatrization. It being impracticable to obtain sufficient human skin to cover the ulcers, a young black and white greyhound, seven days old, was killed with chloroform, and, the whole of his anterior abdominal wall and flanks having been shaved, the flap of the skin thus marked out was dissected up, taking the entire thickness, leaving the subcutaneous fat. The skin was cut into strips measuring six inches long by half an inch broad, which were firmly pressed into the previously cleaned ulcer in the long axis of the limb. Smaller grafts, about an inch square, were used to fill in spaces left between the larger ones. A considerable area over the inner side of the knee still remained bare, and, to cover it, the skin from the pup's tail was dissected up, unshaven. Over these grafts an antiseptic dressing was applied.

On the first dressing, three days later, all the grafts but one small one had adhered. Some of the long strips sloughed later, but the smaller ones all did well. It was observed that the graft taken from the tail, which was not shaved, behaved exactly as the sponge does by promoting granulation. The hairs around the margins seemed to stimulate the granulations which grew on to the surface of the graft, and then spreading, completely swamped it. A few small grafts of human skin from a small boy were scattered here and there, two weeks later, to fill up gaps still left, and all did well. One or two spots still remaining a couple of days later were covered with pieces of the skin of an old frog, but these failed to unite.

Cicatrization was complete in six weeks after the first application of grafts. Seven months later there was absolutely no cicatricial contraction except where the tail skin

was planted, and there it was very slight. The color of the skin was uniform and very similar to that of the normal skin. There was no evidence of any development of hair or of cutaneous secretions. The ordinary sensation was as good as in the other leg, and the temperature of both was the same.

The author believes the favorable outcome of the case to be mainly due to the age of the animal selected to furnish the grafts. In the first few days of extra-uterine life the creature grows very rapidly, and by grafting a large area of young tissue with a potentially great developmental power, the ulcerated area is quickly covered in and the contraction prevented which invariably results after extensive burns when they are allowed to heal without artificial aid.

Operation for Prolapse of the Rectum.

In the *Annals of Surgery*, April, 1890, Dr. John B. Roberts proposes and describes how he conducted, in the case of a young woman, an operation for proctorrhaphy which seems to meet all the indications. The anal aperture was so dilated that he could readily insert the ends of the five fingers of his hand into the rectum. When the bowel was prolapsed it protruded from the anus as a sausage-shaped mass about four inches in length. He then determined to cut out a V-shaped portion of the posterior wall of the rectum, the apex of the V being upward, and at the same time to diminish the anal aperture by excising a part of the sphincter muscle. This procedure would diminish the caliber of the lower part of the rectum and give it a narrow orifice; so that the inferior portion of the intestine would diminish in diameter, as it approached the anus, instead of being a tube with a wide, almost funnel-shaped, lower opening through which prolapse was constantly occurring.

The steps of the operation were as follows: Making a small incision in the middle line near the point of the coccyx, he introduced his finger and broke up the cellular connections behind the rectum, as is done in preparing to excise its lower end for carcinoma. The sphincter muscle was then divided in two places by incisions each about a half inch away from the posterior median line. By carrying these incisions obliquely backward through the skin until they met at the original incision near the tip of the coccyx, he included between them a triangular portion of tissue which had as its base about one inch of the anal sphincter. With scissors he then cut from the posterior wall of the rectum a long triangular piece consisting of the entire thickness of the wall. The apex of this V-shaped section was situated about three inches up the gut, while its space corresponded with the space between the incisions by which one inch of the sphincter muscle was removed.

After hemorrhage had been controlled with catgut ligatures, chromicized catgut sutures were used to bring the divided wall of the incised rectum together. The first suture was introduced at the apex of the wound, that is, three inches above the anus, and was tied with the knot *within* the bowel. Successive sutures were inserted, with intervals of about one-third of an inch between them, until the lower margin of the rectal wound was reached. The last intra-rectal suture was placed just inside the margin of the anus. They were all tied upon the mucous surface of the bowel so that the knots were within the lumen of the intestine. In this manner the lower portion of the rectum was greatly reduced in diameter. The divided ends of the anal sphincter muscle were then brought together by two catgut sutures and one wire shotted suture. The anal aperture was thus reduced, so that it was barely possible to introduce the tip of one finger; whereas originally five fingers could readily be thrust into it. A rubber drainage-tube was then introduced into the cavity between the rectum and the sacrum, and the wound leading backward from the anus to the coccyx was closed with numerous shotted wire sutures carried deeply by means of a strong and curved cervix uteri needle.

The result of Dr. Roberts' operation was not very good; but this fact he attributes to a diarrhœa and the entrance of fecal matter into the wound.

Keloid.

The *Edinburgh Medical Journal*, August, 1890, says Leloir and Vidal have contributed some interesting facts to our previous knowledge of keloid. They describe the spontaneous and the cicatricial forms, and add what has been often confused with these, an account of hypertrophic scars. In spontaneous keloid the number of the individual

growths is sometimes very great. Thus, in a case observed by Amicis there were 318, the greater number spontaneous, but a certain portion secondary or cicatricial. They were arranged nearly symmetrically, and were most numerous on the arms. Examined microscopically, the epidermis and its interpapillary cones preserve their normal aspect. Keloid, unlike cicatricial tissue, arises in the corium, up to that time intact, and is, consequently, not a formation destined to repair a loss of substance. The persistence of the interpapillary cones and of the papillæ is not met with in the secondary or cicatricial keloid, and is limited exclusively or nearly so to the true or spontaneous form. The authors, after careful examination, have not been able to find any alteration in the nerve filaments or to discover the smallest microbe. Cicatricial or secondary keloid is that which is developed in the thickness of a scar. It begins below the cicatricial neoplasm or at a point in its margin, but the ultimate growth has no connection with the extent of the scar in which it has arisen. Kaposi has stated that the hypertrophic scar closely resembles keloid, but the authors do not accept this view. An hypertrophic scar is usually redder, more vascular, and not so hard as keloid. The latter, once removed, recurs almost constantly in the cicatrix left after the operation, or in the course of the stitches, excision of hypertrophied scars cures them completely, or they may spontaneously disappear. The authors have seen two instances of recent cicatricial keloid cured under the continued and regular application of mercurial plaster. The true keloid they find is best treated by repeated scarifications carried nearly as deep as the growth, and not more than two or three millimetres beyond its margin. These must be continued till there is a uniformly pliant and thin cicatrix. Should a nodule of induration not larger than a pin's head remain, this little by little enlarges, and the neoplasm recurs. The scarifications are to be two millimetres apart, and crossed at right angles. The pain can be much lessened by painting the part once or oftener with chloride of methylene.

Fissure of the Anus and Masturbation.

Dr. A. Grimm says, in the *Cincinnati Lancet-Clinic*, September 13, 1890, that the comparative infrequency of fissures of the anus in childhood, and still more the exceptional instances in which these have been known to cause masturbation, prompt the report of the following interesting case.

A female child, not quite eleven months old, was brought to him with a history of masturbation of three months' standing. The child was well developed and, with the exception of a certain degree of anemia and puffiness about the face, seemed to be perfectly healthy. Before the true nature of the affection was recognized, the mother had often noticed the child while in a state of momentary abstraction suddenly stiffen and relax in her arms. Gradually the symptoms became more pronounced. A certain definite position on the arm was sought; the shoulder of the mother would be firmly grasped, and with flushed face and quickened breath a seesaw motion commenced, lasting till the acme of orgasm was reached. If on the floor, the little sufferer would steady the body with her hands, and inclining towards the right side tightly press the legs together. A jerky to-and-fro movement would now begin, the face, as before, flush, and while groaning and panting, and bathed in perspiration, the orgasm would come on, often followed by a fit of crying or quiet sleep. So entirely oblivious of her surroundings was the child, that neither the presence of strangers nor scolding nor terrorizing could interrupt the action. The attacks would occur from five to ten times a day, but never during sleep. The physician who had first been consulted ascribed the symptoms to the possible presence of pinworms; but anthelmintics proved of no avail.

An examination of the genitalia revealed a slight swelling of the labia majora and a good deal of redness of the introitus vaginæ, with increased moisture. As all symptoms referable to the rectum, such as painful defecation, bloody stools or constipation, were absent, the treatment was directed towards allaying the apparent hypersensitiveness of the vaginal tract. Bromide was ordered internally, and cocaine in solution and salve applied externally. Though the vehemence of the symptoms seemed to abate somewhat, a cure was not effected.

At this juncture Dr. Forchheimer was called in consultation. A careful examination of the genitalia was made, but the findings were pretty much the same as before described. Passing, however, his hand over the anal region, an induration was distinctly felt, and on forcibly opening the anus sev-

eral linear fissures were seen just within the sphincter. Success seemed now insured, and a favorable prognosis given. Most authors agree that anal fissures in children are more amenable to treatment than the same affection in the adult, and the heroic measures so frequently necessary in the latter are hardly ever called for in the former. Weak solutions of nitrate of silver and light touching with the solid stick of nitrate were employed, the parts were always kept well smeared with an iodoform salve and the bowels maintained in a soluble condition. But the fissures would not heal. At last, disgusted with the ineffectual results of this method, surgical interference was advised and accepted. Dr. E. W. Walker was called in consultation and practiced division of the sphincter. An iodoform tampon was daily introduced into the rectum by means of the speculum, and in two weeks the ulcers healed and masturbation was no longer indulged in.

At this period the child was, unfortunately, taken ill with chicken-pox. Not only was the skin studded with the characteristic vesicles, but the mucous membranes of the mouth and pharynx also participated in the eruption. The disease had scarcely subsided when the child resumed the former practice of masturbation. An inspection of the anal region revealed the same, if not a worse, condition than before, and, without further temporizing, Dr. Walker was again called to divide the sphincter. The fissures healed as kindly as in the first instance, and with their disappearance masturbation also ceased. In searching the literature, Dr. Grimm was unable to find a parallel case. The *American Journal of Obstetrics*, vol. ix, 1876, contains the report of a case of masturbation, by A. Jacobi, in a female child nine months old. In this instance, however, the practice became established through a state of chronic constipation.

The remarkable features in the case just presented are the age and sex of the child, the severe measures that had to be adopted for the cure of the fissures, the entire absence of rectal symptoms, and, lastly, the rekindling of the disease during or immediately after an attack of chicken-pox. As regards the latter point, Dr. Grimm is inclined to believe, rare though it may be, that an eruption similar to the one existing in the mouth also invaded the rectal mucous membrane, and in this manner reproduced the pathological conditions.

The Cure of Leprosy.

The *Druggists' Circular*, September, 1890, says: The cure of a case of leprosy is reported by Dr. Sandreczky, of Jerusalem. It was that of a child of eight years, in whose family and connections leprosy had never occurred. He was under treatment for four years, and it was directed upon general principles, such as fresh air exercise, massage, iron and quinine; bathing with green soap, sulphur, iron, or salt, the water being very hot and the bath being followed by free sweating under proper covering. The tubercles were treated with chrysarobin, green soap, or iodine without any effect. After two years of general treatment marked improvement showed itself. There has been no relapse, and all signs of the disease have disappeared excepting the atrophy of the hands, which is, of course, permanent.

Antidote for Strychnia.

At the British Pharmaceutical Conference, September 2, 1890, Mr. Siebold made a verbal communication regarding the antidotes of strychnine.

In this he explained, as stated in the *Chemist and Druggist*, September 6, 1890, that he had taken fifteen-minim doses of liquor strychninæ, sufficient to produce contraction of the terminal muscles, and had followed the doses, as soon as the symptoms appeared, and sometimes before, with doses of the various antidotes. Tannin in ten-grain doses was perfectly valueless. Charcoal in one-ounce doses did have some effect, but not much; whereas chloral hydrate and chloroform sufficed to entirely prevent the muscular contractions if taken in time; and injections of morphia were also useful.

Foreign Students in France.

According to the *Gazette Médicale*, of Paris, August 2, 1890, there were registered in the second trimester 908 foreigners who were studying medicine in France; of whom 822 were in Paris. Of the latter there were: from Russia, 261; the United States, 159; Roumania, 85; Turkey, 71; England, 51; Spain, 34; Greece, 34; Switzerland, 25; Servia, 20; Portugal, 18; Egypt, 13; Italy, 12; Bulgaria, 8; Austria, 7; Belgium, 7; and Holland, 60.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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P. O. Box 843. Philadelphia, Pa.

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

PROTECTION OF WATER SUPPLIES.

It is a curious and somewhat alarming fact that the city of Newark has recently protested in vain against the introduction into the Passaic River of the sewage of the city of Passaic, which is situated only four or five miles above the intake of the water-works of Newark. Afterwards the Aqueduct Board applied to the Chancellor of the State for an injunction to restrain the city of Passaic from discharging its sewage into the river, alleging that such discharge would materially pollute the water to the injury of its business, and the health of its inhabitants. This application was denied, and on an appeal to the Aqueduct Board of New Jersey Court of Errors and Appeals the decision of the lower tribunal was affirmed.

Our contemporary, the *Engineering and Building Record*, August 16, 1890, rightly says that this case, involving as it does, the right of municipalities to use navigable streams for sewage disposal and water supply, is of great interest to all who are either officially or professionally concerned in such matters.

The grounds upon which the application for an injunction was denied were, 1, That the water of the Passaic River, where the tide ebbs and flows, belongs to the State, for uses common to all its citizens. 2. That the city of Newark has no special rights in that water, either by reason of its riparian ownership on the river, or by grant from the State, which may be injured by the apprehended nuisance, and enable the complainant, by showing an apprehended injury, distinct from that which will be suffered by the other inhabitants of this State, to maintain its individual suit to restrain the nuisance. 3. That, at best, such special rights have not been established by adjudication in this State. 4. That the complainant is not in position to ask for a preliminary injunction when the right on which it founds its claim is, as a matter of law, unsettled. 5. That the proceeding in equity to restrain a public nuisance is by information of the Attorney-General. 6. That the statutory authority to the complainant to maintain a suit in equity for nuisance to water-courses connected with its works, did not constitute it a public agent to sue to restrain a public nuisance, but merely clothed it with power to sue, as an individual might, for the protection of private property. 7. That an injunction to restrain a nuisance will issue only in cases where the fact of nuisance is made out upon determinate and satisfactory evidence, and that, if the evidence be conflicting, and the injury be doubtful, that will constitute a ground for withholding the injunction. And if the nuisance be merely apprehended, it must appear that apprehension of material and irreparable injury is well grounded upon a state of facts which show the danger to be real and immediate. 8. That such conditions of fact do not appear in this case.

We cannot spare space to reproduce the excellent article in the *Engineering and Building Record*, upon this subject; but would refer all of our readers especially interested in the matter to consult it for themselves. This much, however, from the medical standpoint we may say: that it must be regarded as a very serious misfortune that any law, or lack of law, should come between the inhabitants of any city and the protection of their source of drinking water from pollutions dangerous to health. In general the rights of those who must drink water from any stream, to its protection against contamination, are beyond question; and it seems contrary to reason—it certainly is contrary to common-sense—that the fact that water moves in two directions should alter the rights of those dependent upon it for their drinking supply.

We trust that some way will yet be found to protect the city of Newark against any such dangers as now threaten it. More than this, we trust that the time will arrive when no city will be willing, if permitted, or permitted if willing, to discharge its sewage into a stream. It is only a question of time and cost when all the sewage of cities will be either rendered inocuous, or utilized for agricultural or other purposes; and the saving part of such occurrences as are reported from Newark consists in the fact that they probably will hasten that day by the very wrong which they inflict.

HOSPITALS FOR THE TREATMENT OF PHTHISIS.

In a brief paper presented to the Medical Section of the Tenth International Medical Congress, recently held at Berlin, and published in the *Münchener Medicinische Wochenschrift*, August 26, 1890, Dr. Hermann Weber, of London, considers the treatment of phthisis, and makes an earnest plea for the establishment of institutions for the exclusive treatment of poor phthisical patients. As yet we know of no specific remedy for phthisis. If a disease cannot be attacked directly it must be combatted by strengthening the entire organism including the diseased focus. It is a recognized fact that the greater the want of cleanliness and the larger the number of persons present in any cubic space, the larger will be the number of microbes. Suitable ventilation diminishes this number. Thus the indications in the treatment of such a disease as phthisis are: to support the general nutrition; to control cough, fever, hemoptysis and sweats; and to disinfect the air of the rooms in which patients live.

No class of cases requires more constant observation than consumptives do. On this account their treatment in institutions devoted exclusively to that object possesses, Dr. Weber rightly says, great advantages for most patients, and constitutes for many a condition necessary for convalescence.

In this connection climate becomes an important element. In the great altitudes of mountainous regions the air is clearer and more dilute, the barometric pressure is less, the amount of moisture is slight, the temperature is lower, there is much sunshine, and the wind is relatively still in winter. Here out-door exercise is almost always safely possible and the appetite improves. The dryness and coolness of high regions causes increased pulmonary activity and secretion with increased cardiac action and pulmonary circulation, and the expansion of healthy lung structure exerts a curative influence upon adjacent diseased tissue.

In the selection of a residence for a phthisical patient, Dr. Weber says, the following points should be considered: the air should be as free as possible from dust and organic impurities of all kinds; the soil should be dry; a southern or southwestern exposure should be selected; the dwelling should be high above the valley and the water-level, and, if possible, close to a wood, especially a pine wood. The place should be one on which there is abundant opportunity for physical exercise and for

suitable employment, and provided with protected walks and seats. Rooms for patients should have a sun exposure, be well ventilated and amply large. For weak patients with fever there ought to be verandas with beds or lounges for use during the day.

The establishment and maintenance of institutions for the care of the poor phthisical would entail the expenditure of large sums of money, but the advantages derived from them would more than compensate for the additional expense. The condition of the patients would be alleviated and the condition of their families would be much improved. By timely treatment not a small proportion of patients would be cured entirely, or to such a degree as to become capable of work. The patients would learn a mode of living and acquire habits which would guard them against new attacks or relapses. They also learn how to dispose of their sputa so that it shall not be dangerous to others, and so the community is a gainer. Meanwhile general hospitals are by so much relieved of pressure and made free for the treatment of acute diseases. In all, it is clear that special hospitals for the treatment of consumptives are one of the great needs of the present day.

MEETING OF THE ORTHOPEDIC AND OBSTETRIC ASSOCIATIONS.

The American Association of Obstetricians and Gyneocologists which recently has held its third meeting in Philadelphia, gathered together a large number of medical men from the West and South, as well as from the middle section of the country. Men well known in these departments read papers and discussed subjects belonging to their specialty, and entertainment for them was provided by the officers of the society residing in Philadelphia.

The meeting of this Association was held at the same time as that of the American Orthopedic Association which had a most interesting and valuable meeting, with social features which were more than usually successful. The simultaneous meeting of these two societies demonstrated the convenience with which such bodies can be entertained in Philadelphia, where the building of the College of Physicians furnished room for both societies without inconvenience to either, and also access to books and specimens of great interest in the Library and Museum of the College. Aside from the acquaintance with Philadelphia medical matters gathered by a visit to this city, the members of visiting medical societies have an opportunity to see a library and a museum unsurpassed in this country, and learn something of a society which is the oldest, and in many respects the most distinguished, medical body in the United States.

ELECTRICAL TREATMENT OF GOUT.

At the Tenth International Medical Congress, Mr. Edison made a communication through Dr. Bayles, who represented him in the dermatological section, in which he urged the importance of using electricity to promote the distribution of gouty concretions. He described experiments by which the process of osmosis in animal membranes has been very much facilitated by the passage of an electrical current through the fluids and the membrane. This suggested to him the attempt to produce absorption of lithium salts in the immediate vicinity of the gouty accumulations. In one case he placed one hand of a healthy man in a solution of chloride of lithium, and the other in a solution of chloride of sodium, and connected the negative pole of a battery with the salt solution and the positive with the lithium solution. The current had a strength of four milliampères and lasted for two hours every day until a total application of eleven hours had been made. Spectroscopic investigations showed that considerable portions of lithium were excreted in the urine. Edison next undertook the treatment of a man seventy-three years old who had very obvious

chalky concretions near his joints, especially the finger joints. In this case the treatment consisted in the application of electricity passing through solutions of chloride of lithium (1.08 per cent.) and chloride of sodium, the current having a strength of one hundred and twenty volts and a resistance of five thousand ohms, the patient bearing a current of twenty milliampères without inconvenience; and this was applied four hours a day for six days. At the end of this time the diameter of the finger which was used as a test was found to have been reduced one-half a centimeter; the pains had disappeared on the first day. Further application of the current reduced the diameter of the finger somewhat more.

This experiment is more interesting than conclusive. It has been long known that medication could be introduced into the system by means of the skin, if an electrical current were used to promote its absorption. What part of the action in the case described was due to the lithium which entered the economy, and what part to the local action of electricity, it would be hard to say until some comparative experiments have been made in regard to this subject. But the matter is one which deserves careful attention, and invites, we think, further experimentation on the part of medical practitioners familiar with the application of electricity and its capabilities as a remedial agent.

AMERICANS AT THE BRITISH MEDICAL ASSOCIATION.

In the REPORTER, of August 30, 1890, attention was called editorially to the report that a large number of American physicians had left Birmingham dissatisfied with the way in which they had been treated there. Conflicting accounts of this occurrence have come to this country; but the substance of it appears to be that a few medical men from this country, desiring to be elected to membership in the British Medical Association, presented their names or had them presented for them. Certain of them were not passed upon immediately, but were referred to the Council for inquiry as to the standing of the candidates in their own country and their fitness for membership in the British Medical Association; whereupon these men and some of their friends became indignant and left Birmingham. Some accounts say there were only a few who did so, and that the whole trouble was about one man who is far from being a fit representative of the profession in this country. Other accounts say that several names were referred to the Council and that the number of malcontents was as high as twenty, or perhaps more.

In any case, the facts show how foolish was any claim that Americans, as Americans, had been treated with discourtesy. There was absolutely nothing for Americans to be angry about. But it is not surprising that men so unwise as to take offense at the exercise of such a sound discretion as the British Medical Association showed in regard to making Americans—of whom they have had in times past, we believe, some unfortunate experiences—members of their Association, should try to exaggerate their personal grievance into an international episode. As we have not access to the names of those who did this thing, it may not be invidious to say this much, and to hope that hereafter no Americans will try to get into the British Medical Association, except such as have the sense to understand that the Association is not bound in any way to take them in merely because they are Americans.

—Sodium silico-fluoride has been stated to be a comparatively harmless yet powerful germicide, if taken in solution, the dose being given at one-half to one grain. Recent experiments, however, show that, while a 1 in 750 solution does prevent fermentation, it is by no means harmless as a medicine. The immediate results of its administration are an irritated condition of the mucous membrane of the stomach.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

PRACTICAL SANITARY AND ECONOMIC COOKING ADAPTED TO PERSONS OF MODERATE AND SMALL MEANS. By Mrs. Mary Hinman Abel. The Lomb Prize Essay. Small 8vo, pp. xi, 190. Published by the American Public Health Association, 1890. Single copies, in cloth, 40 cents; in paper, 35 cents.

Mrs. Abel's essay was awarded the prize by the American Public Health Association. There were seventy competitors. So far as we have been able to judge by a pretty careful examination it fulfils reasonably the promise of its title.

In looking over the diet-tables for the first, or poorest, class, we are struck by several things. Breakfasts consist chiefly of pan-cakes, milk-toast and oat-meal. These are "filling," yet not very sustaining foods; that is to say, it would take a great deal of them to provide nourishment and vigor to carry a working man or woman to the dinner hour, and we fancy any family that should try to adhere strictly to the programme would often be hungry before noon. The whole of the dietary is open to the objection that it is not appetizing; and we would like to know if there could be found anywhere in this country a family that would stick to it. One set of meals for a family of six is estimated to cost seventy-eight cents a day. This is a good deal to pay for food alone, considering that many persons of this class do not earn more than a dollar or a dollar and a quarter a day, and must pay rent and find clothing out of that sum. However, most American work-people can afford it. On the other hand, it shows the better condition of working people in this country; for abroad the price of a day's work is frequently less than the estimated cost, according to Mrs. Abel, of a day's food-supply in America. As to the diet-tables in general, it may be of interest to remark that they are so rich in starchy foods as to make acid flatulent dyspepsia a danger. A larger supply of meat, fat and green vegetables would prevent this, but would also considerably increase the cost. Perhaps the author has given the best diet for the money.

HOW TO PRESERVE HEALTH. By Louis Barkan, M. D. Small 8vo, pp. 344. New York: American News Co., 1890. Price, cloth, $1.00.

Dr. Barkan has produced a book which is admirably clear and concise in its style, and is full of sound advice. He has hit the happy mean of giving definite and specific directions for the care of the health, without seeking to come between the doctor and his patient and being accepted as a compendium of all medical knowledge on hygienic subjects. There are some statements to which exception might be made, and more concerning which there is room for a difference of opinion; but withal it is a very useful book, and one that can be read with profit, both by physicians and by laymen.

Literary Notes.

—Owing to the removal of Dr. H. Longstreet Taylor, the Editorial Department of the *Cincinnati Medical Journal* will be under the direction of Dr. Gilbert I. Cullen, commencing with the August number.

Correspondence.

To Save the Edge of Sterilized Instruments.

To the Editor.

Sir: While attending Prof. von Bergmann's surgical clinic at Berlin recently, the following demonstration was made, which will certainly interest your surgical readers.

To render instruments perfectly aseptic, and to preserve the cutting edges from oxidation, they are boiled for five minutes in a one per cent. solution of carbonate of soda. They can remain in this solution indefinitely without rusting or dulling the cutting edge. When required for operation they are taken out, dried with a sterilized piece of gauze, and handed to the operator. Whenever, in course of the operation, they come in contact with anything not aseptic, all that is required to re-sterilize them is to dip them for a few seconds into the boiling solution of sodium bicarbonate.

Yours truly,

John S. Miller, M. D.

Philadelphia.

Vital Statistics.

To the Editor.

Sir: You will no doubt agree with me when I say that reliable mortality statistics are essential to public health. Prussia and Switzerland recognize the importance of this and have a systematic registration of all the deaths that occur in their city and agricultural populations. The only fairly reliable statistics in this State are those gathered by the cities of Philadelphia and Pittsburgh. Such work is not even thought of in the town and rural districts—which embrace the large majority of our people—except by the census enumerator, who makes a shrewd guess once every decennium. Now it occurs to me that a uniform system of death statistics could be obtained if each clergyman throughout the State were required by law to note the cause of death of each body he buries, and return a record of this to the State Board of Health office at regular intervals of a month. This could be done very conveniently; for it is the custom already in most, if not in all, of the churches, to record all the baptisms, marriages and deaths, hence with the little additional work

of adding the age and cause of death in each instance, we would obtain very satisfactory mortuary statistics of this State—since few burials occur outside the jurisdiction of the churches. I offer this as a suggestion and would be glad to hear from you concerning it.

Yours truly,
THOMAS J. MAYS, M. D.

Philadelphia.

[Anything which would contribute to the formation of accurate vital or mortuary statistics would be a distinct advantage to science. The suggestion of Dr. Mays, if practicable, would be worth trying. We have doubts of its practicability, however; because we believe the statistical returns now a part of the duty of clergymen are very imperfectly made, and we would hardly expect that they would do better if more work were imposed upon them. The best source of accurate returns, we think, are physicians' certificates, and would be glad if stringent laws forbade any burial or cremation in, or removal of a dead body from, the State without the registration at an office designated for that purpose of a physician's certificate giving the actual cause of death. A plan for securing this in Philadelphia was presented to the Philadelphia County Medical Society by a committee which had carefully studied this subject. The recommendations of this Committee will be found in another part of this number of the REPORTER.]

NOTES AND COMMENTS.

Vital Statistics.

The following embodies the substance of a report made to the Philadelphia County Medical Society by a Committee on Vital Statistics, which had studied the subject for more than a year.

In order to secure better vital statistics, the first thing to be done is to define the duty of physicians, and afterwards to inquire what methods we may with propriety ask the health authorities of the city to adopt, in order to insure greater exactness and convenience of reference in the tabulated statements of the Board of Health. Physicians should understand that they ought to report as to the cause of death: (1) the disease with which the patient was afflicted; (2) any complication of moment; and (3) the immediate cause of death. As to the first, the plain truth should be stated, and no evasion should be made out of regard to a natural wish of relatives to hide what may not be pleasant. Further, the physician should avoid the unqualified use of vague expressions, such as "heart-failure," "convulsions," "bowel-complaint," etc., and should try to state the precise disease in scientific terms. It is important also to mention complications; such as endocarditis with rheumatism, and strangulation with hernia. The physician should likewise distinguish between the disease and the immediate cause of death; as, for example, where typhoid fever leads to hemorrhage in the bowels and this to death, the latter should be named as well as the former; or, in a case in which rheumatism was complicated with pericarditis, and the immediate cause of death was hydropericardium, the report should state all these facts. The physician should endeavor to restrict himself to terms approved by the Board of Health in making his reports, and to do all he can to aid the Board in securing accurate and trustworthy statistics.

In reference to the part to be borne by the health authorities in the work, the Committee made the following suggestions:

1. The reports of deaths in Philadelphia shall be tabulated week by week according to the date of death, and not of interment (as at present done).

2. No burial, cremation, or removal of a body from the city shall take place until after a permit has been granted by the proper Health Officer, and the permit shall not be granted until a satisfactory death certificate has been deposited at the Health Office.

3. The blank book containing forms of certificates shall contain a list of terms to be used by physicians in reporting causes of death.

4. Each blank certificate shall provide space for the—

1. Name of deceased (full name).
2. Color " "
3. Sex " "
4. Age " " (years, months, days).
5. Social condition of the deceased (single, married, widowed).
6. Residence of deceased (ward, street and number).
7. Date of death.
8. Cause of death { Disease. / Complication. / Immediate cause of death.
9. Duration of last illness.
10. Name and address of physician signing the certificate.

It is suggested that the form of blank be made out somewhat as follows. Each blank shall be divided into three divisions:

1. For the undertaker's certificate.

2. For the permit of burial.
3. For the physician's certificate.

Such a certificate shall be first filled out in his part by the physician. It shall then be taken to the Health Office by the undertaker. Here a registration number shall be marked on each part of the certificate (the same number being used for each part), and the physician's certificate shall be detached and kept by the proper officer for registration and reference. The permit shall then be filled out and given to the undertaker, who shall detach it and present it to the superintendent of the place in which burial (or cremation) is to take place. The undertaker's certificate shall have blank to contain the—

1. Name of deceased.
2. Nationality of deceased.
3. Residence of deceased.
4. Date of death.
5. Name of physician in attendance at death.
6. Date of burial (or cremation).
7. Place " " (" ").
8. Name and address of the undertaker.

This certificate shall be filled out by the undertaker and shall be returned to the Health Office immediately after the burial or cremation has taken place. The permit shall be retained by the proper officer of the place of burial or cremation.

In order to secure greater accuracy in returning the causes of death, it has been proposed above to suggest to the Board of Health to print in every book of blanks for death certificates a list of terms approved by the Board for use in tabulating vital statistics, and the Committee prepared and reported such a list, and asserted its belief that with a careful and conscientious use by physicians of the terms contained in this list it would be easy for a Board of Health to collect accurate vital statistics.

Dry Gangrene in a Child.

Dr. T. C. Wallace, of Cambridge, N. Y., adds to the report in the *Medical Record*, July 5, of a case of dry gangrene in a boy, two and a half years old, by Dr. Kelley, of Winchester, Ind., another in a girl, twenty months old. The child had been quite sick for several days with measles, under the care of an intelligent practitioner, and was fairly convalescent. Early in the morning of April 12, 1886, after a comfortable night, her right leg, up to and including the ankle, was found to be very cold. She lay in a crib-bed and it was thought she had protruded her foot between the slats from under the bed-clothes. The leg was wrapped in a warm flannel and replaced in bed, and no more thought of the matter until, after a few hours, it was examined and found to be still cold. More energetic means of warming the limb were resorted to—friction, hot water in bottles, etc.—but all of no avail. The child did not seem in any way worse, made no manifestation of pain, and appeared to suffer no discomfort. It was simply impossible to warm that foot, although every effort was made all the day and the succeeding night. During next day the foot assumed a livid hue, which gradually deepened in color. The next morning the limb was of death-like coldness up to and above the ankle, of a mottled mahogany color, darker at the toes and gradually growing lighter toward the ankle, where was a well-defined edge, indicating, I thought, the future line of demarcation. The next morning the big toe and the one next to it were in a state of gangrene, and a large gangrened spot was seen under the heel. The dark color near the front of the foot was more profound. The color above and around the ankle was much more natural and the parts warmer, in fact of normal warmth. The embolus had either been forced further down in the artery, or the collateral circulation had become more established. It was then hoped that, except for the gangrened spot under the heel, the heel itself might be saved by either Syme's or Pirogoff's amputation. In a few days all the toes underwent gangrene—true senile gangrene, dry, black and odorless. This gradually spread until the whole foot nearly to the tarsus was in a like condition.

The progress of the case was slow, the circulation about the ankle gradually becoming more active. After two or three demarcation lines were plainly indicated the true line at last formed, just anterior to the tarso-metatarsal joints, and on June 26 Dr. Wallace amputated through those joints. Happily the gangrene under the heel included only the soft parts, and the periosteum was not involved. The stump healed satisfactorily, but very slowly. The child's physical condition was good throughout the whole progress of the case, and she put on a large amount of flesh. She has enjoyed uninterrupted health ever since.

Doubtless, owing to the original embolism, the limb has never grown equally with its fellow. Its temperature is perfectly normal, but its contour is not so well developed, nor does it grow in length so fast. It is now seven-eighths of an inch the shortest.

On inquiry by letter Dr. Wallace learned that neither Dr. Frank H. Hamilton nor Dr. D. Hayes Agnew had ever seen spontaneous gangrene in a young child. He searched every authority he could get access to; and, aside from a general statement that such cases are occasionally recorded in children under ten years, he could find but two cases recorded: one in an infant aged eleven months after an attack of measles, and one in a child, whose age is not given, just recovering from measles. It is certainly singular that these two cases, as well as his own, should not only have had the measles but all three be convalescing therefrom. Dr. Nickerson, of Meriden, Conn., gave Dr. Wallace the history of a child two and one-third years old, attacked by a severe remittent fever, accompanied, on the third day, by smoky urine which proved to be half blood. When the fever had ceased, the urine was fast clearing up, and the child was sitting up in bed playing. Dr. Nickerson found the toes on one foot quite black and in dry gangrene. This rapidly extended up the leg and thigh, and before the child died the entire limb, to the junction of the trunk, was perfectly black.

Dr. Nickerson and Professor A. L. Loomis were both of the opinion that the three cases just mentioned were primarily cases of ulcerative endocarditis.

Aborting Gonorrhœa.

The Paris correspondent of the *Medical Press and Circular*, June 18, 1890, says, that M. Malècot has devised and recommended the following method for aborting an acute attack of gonorrhœa. After making the patient micturate, and washing his urethra out with a weak boric-acid solution, he injects an ordinary syringeful of a solution of nitrate of silver (1:50), and on the following days of 1:100, or even 1:150. The solution is allowed to remain two or three minutes in the urethra. At the same time that the injections are being used, he prescribes frequent injections of some antiseptic solution. He prefers five centigrams of salicylate of mercury in one hundred grams of water at a temperature of 30° to 40° C. (86°–104° Fahr.). A cotton plug impregnated with the antiseptic should be kept fixed in front of the meatus urinarius so as to absorb the pus as it escapes; and the plug should be changed as soon as it is soiled. From six to eight capsules of oil of sandal-wood are also prescribed for a dose.

As the result of this treatment, the author states that he has often obtained, in from three to four days, the cessation of an attack of gonorrhœa even when there was a profuse flow of pus.

Posthumous Labor.

A correspondent writes in the *Lancet*, July 19, 1890, that at Moglia, in the province of Mantua, there recently occurred a case of *post-mortem* delivery in some respects unique. A woman, Lavinia Merli by name, subject to chronic epilepsy, had suddenly lapsed into the cataleptic state when in the eighth month of pregnancy. So death-like was the trance that she was certified as dead and ordered to be buried. The coffin containing the unfortunate woman was closed and deposited in the mortuary chapel pending the grave-digger's work, when next morning it was found with the lid raised. The woman's body, now a corpse, was horribly contracted, and, closely pressed between the knees, lay a new-born child, quite dead. The grave-digger and his men, for reasons of their own, kept their discovery a secret and buried the two corpses. The facts, however, leaked out, and the judicial authorities, aided by physicians from Mantua, at once proceeded to exhume the coffin and examine its contents. A very minute and prolonged inspection was made, with the result that the physicians declared themselves satisfied that the mother was already dead when the child was expelled from the womb. From the position of the bodies and the commencing decomposition in which they were found, taken in connection with other considerations set out at length in the official report, the conclusion was arrived at that the gases, disengaged by the putrefactive process, and seeking an exit, had forced out the fetus; that, in short, the case was one undoubtedly very rare, but by no means unprecedented, in obstetric experience of "posthumous labor."

The incident, however, has attracted notice beyond the Mantuan province, and

medico-legal discussion on its details is yet far from being exhausted. It is asked, not unnaturally, if the woman Merli had really ceased to live, how the coffin lid came to be even partially raised? She is not by any means the only patient, in catalepsy or "nona," who in quite recent Italian experience has been certified as dead and treated accordingly; and the anti-cremationists, making the most of such cases, are warning the public how still more slender, in apparent death, would be the chances of escape for Merli and her like, if, instead of the coffin, she had been consigned to the crematorium.

Medical Matters in Constantinople.

The city of Constantinople has always been a tempting field for the illegal practice of medicine, although there exists a code of regulations which, if faithfully executed, would greatly reduce the number of unqualified practitioners. Under the Supreme Board of Health an official list has been drawn up, containing the names of all legal practitioners, and the pharmacists are forbidden to dispense the prescriptions of any persons not named in that list. As a further precaution, the physicians are directed to write their prescriptions on an officially stamped form or paper, which is issued to them by the Imperial School of Medicine, and which should bear the printed name and address of the prescriber. According to the *Chemist and Druggist*, from which the foregoing has been abstracted, there is probably no town on earth where patent medicines are consumed to such an enormous extent as in Constantinople; the nostrums coming from France take the lead of all others, then follow English, Italian and German proprietary articles. Street vendors dispose of considerable quantities of quinine confections and pastilles of santonin, and in the bazaars a lively trade is done in drugs producing abortion, which are used to a large extent by the Turkish and Armenian women. The purchase of opium and hasheesh is almost unknown for private consumption, the trade being exclusively in the hands of wholesale merchants, and it may be observed that, whereas in the seventeenth and eighteenth centuries opium-smoking, in spite of strong prohibitive laws, was very common in Constantinople, very little of that vice is known to exist at the present time.

The Imperial School of Medicine has a strongly patriarchal character, and the tuition is almost entirely free. There are about three hundred students, the majority of whom are clothed and boarded at the expense of the government, but are bound, after the completion of their studies and examinations, to serve for a time in the army, either as pharmacists or as surgeons. The buildings now temporarily occupied by the medical school were formerly used as barracks, but they are beautifully situated in the centre of a park, under the direction of a division general. The anatomical collections are exceptionally fine, and the school might be described as well appointed and furnished, except for the neglect that is observed in the branch of chemistry, which appears to be the special care or concern of nobody. The chemical laboratory is hardly more than a nominal one, and nearly all the pharmaceutical students have to depend upon private resources for the prosecution of the practical part of their studies. The chemical department is under the direction of a brigadier general.—*New York Medical Journal*, August 23, 1890.

Treatment of Bubo.

Dr. L. Brocq, writing in the *Journal of Cutaneous and Genito-Urinary Diseases*, July, 1890, says that according to Dr. Cordier, of Lyon, the procedure which has given him the best results in the treatment of bubo is as follows: As soon as the œdema of the skin shows the presence of pus, he makes a puncture with a straight bistoury. There is discharged along with the blood some streaks of pus. No pressure is made, but the cavity is injected with about 15 drops of a solution of nitrate of silver (1 : 50). Without paying any attention to whether the solution flows out again or not, the wound and groin are dressed with iodoform and a spica bandage is applied. When this slight operation is done soon enough, Dr. Cordier says no purulent discharge follows, and the bubo disappears rapidly, leaving behind a sort of indurated nodule. When the puncture is made in a bubo much more advanced and in full suppuration, the pus must be carefully washed out. A first injection of the solution is made to cleanse the parts, and the second injection is left in. A decided inflammatory reaction is then established and free suppuration occurs, which

lasts for three or four days, and then becomes serous. Healing takes place rapidly, and the opening closes without leaving a cicatrix. Dr. Cordier has had the same results, whether the bubo was specific or simply inflammatory.

Board of Medical Examiners of New Jersey.

The State Board of Medical Examiners of New Jersey will meet in the Senate Chambers at the Capitol, in Trenton, on Thursday, October 9, at nine o'clock in the morning, for the purpose of examining candidates presenting themselves for a license to practice medicine in this State.

Under the present Medical Law of New Jersey, every person desiring to practice medicine or surgery as a resident in that State, who was not legally registered previous to July 4, 1890, must obtain a license from the Board of Medical Examiners.

Further information will be furnished by the Secretary, Dr. William Perry Watson, Jersey City, N. J.

Fluoroform.

The *Monthly Journal of Pharmacy* states that a French chemist, M. Meslans, has succeeded in preparing *fluoroform*. It is the analogue of chloroform and iodoform, the chlorine and iodine of these substances being replaced by fluorine in fluoroform. But whereas chloroform is a liquid and iodoform is a solid at ordinary temperatures, fluoroform is a gas. It is coloress, and has a pleasant ethereal smell, recalling that of chloroform.

Zinc Sulphite as an Antiseptic.

Dr. F. T. Heuston read a paper at the last meeting of the British Medical Association, "On a Non-poisonous, Non-irritative Antiseptic Dressing." Calling attention to the poisonous and irritating nature of many of our ordinary antiseptic dressings, he spoke highly of the value of zinc sulphite as a non-poisonous and non-irritative dressing. It was used in the form of an impregnated gauze; this was tinted red with a vegetable dye. By this means it could at once be seen whether the zinc sulphite had undergone any decomposition, for on wetting it the color disappeared if the sulphite had undergone no deteriorating changes.

Camphor a Solvent for Iodoform.

Camphor increases the solubility of iodoform in alcohol and ether. While one hundred parts of alcohol ordinarily dissolve not more than one and one-fourth parts of iodoform, the same amount of a saturated solution of camphor is capable of taking up as much as ten parts.

NEWS.

—Dr. George Strawbridge has resigned the Chair of Otology in the University of Pennsylvania.

—The newspapers announced on September 21, that a girl thirteen years old had given birth to triplets in Cincinnati.

—Dr. R. Curtis Gray has removed from 590 Atlantic ave., Brooklyn, to 652 Carroll street. His telephone number is "177 South."

—Dr. T. J. Whitten, of Nokomis, Ill., has purchased the David Prince Sanitarium at Jacksonville, Ill., and will take charge November 1, 1890.

—Dr. James A. Lydston, late chief of Eye and Ear Department, Pension Bureau, Washington, D. C., has been elected to the Chair of Chemistry of the Chicago College of Physicians and Surgeons.

—Dr. Joseph H. Coover died of heart failure September 25, 1890, at his residence in Harrisburg, Pa. He was in apparent good health up to the night before but was stricken during the night and died almost instantly.

—From Pittsburgh, it was reported, September 18, that a leper had been discovered and caused great alarm. The man's name is Nafsky, and he is supposed to be the same man who filled the inhabitants of a town in Ohio with terror.

—The Philadelphia *Inquirer*, September 22, reporting the return of Dr. Wm. H. Pancoast from Berlin, says that while there he had received much gratifying personal attention, and that he "spoke gratefully of some special compliments, the nature of which he modestly refused to reveal, though he owned that they were as flattering as they were unexpected."

MEDICAL AND SURGICAL REPORTER

No. 1754. PHILADELPHIA, OCTOBER 11, 1890. VOL. LXIII.—No. 15.

CLINICAL LECTURE.

LARGE WHITE KIDNEY, ASSOCIATED WITH DROPSY, ALBUMINURIC RETINITIS AND UREMIA.[1]

BY JOHN H. MUSSER, M. D.,

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Dropsy from Nephritis.

Gentlemen: The patient I bring before you makes a fair object lesson in clinical medicine, manifesting as he does some of the interesting features of the diseased condition from which he is suffering. In examining a patient, we take first, as the basis upon which to construct our judgment of the case, the symptoms of which the patient complains—the subjective symptoms—and then we proceed to examine the patient with respect to the condition of each organ and secretion, every structure and function, thus confirming our judgment by means of the objective symptoms. The patient may or may not be aware of the objective symptoms, as in the case of a slight curvature of the spine, or a cavity in the lungs, while the subjective symptoms are only indicated to the physician through the sensations of the patient. Physical diagnosis consists in the use of our senses in any way to detect any abnormal condition. The examination of the urine is as much physical diagnosis as is the examination of the chest. Often we will be unable to use anything but physical means to discover the ailment present, as when the patient is unable to assist us because of coma, for instance.

This patient has been in the ward for some time. He was admitted on the seventh of August complaining on account of swelling of the body, the development of which is of interest. It came on in April last after some exposure. It was greatest in the feet, but with some puffiness under the eyes. By June it had extended over his entire body. In July he was admitted to the German Hospital with an extremely swollen condition of the entire body. At the same time he complained of severe headache and was unable to see as readily as formerly—a slight failure of vision. We have no accurate account as to any improvement while the patient was in the German Hospital, but we learn that on the first of August he passed his urine very frequently, while on the third and fourth the amount voided very much decreased and the swelling recurred. His condition on admission on August 8 was more aggravated than at the present time. His face, arms, legs and trunk were swollen and there was diminution in the amount of urine voided—objective symptoms. He was suffering with headache and dimness of vision, together with symptoms due to the mechanical effects of the swelling—subjective symptoms.

Let us now look into his present condition. You will notice there is some swelling of the eyelids and some conjunctivitis, with lachrymation. The general swelling has been considerably reduced during the last four or five days. The structures of the face appear to be normal on palpation. The legs were extremely swollen, and to-day show readily the characteristics I wish to call to your attention. They are very pale, the skin over the shin bones is tense and shining, and over all there is a slight eruption. The legs were swollen to bursting, and no doubt this gave rise to the present irritated state of the skin. At times the swelling is so great as to cause ulceration and even to lead to gangrene from irritation by the decomposed serous exudation, with

[1] Delivered at the Philadelphia Hospital.

malnutrition of the parts. We recognize that this swelling is due to œdema, from the pallor, the pitting on pressure, and the absence of heat in the part. The thighs are also œdematous, hard and tense. There is great distension of the abdominal surface, which is very pale, and pits moderately on pressure. The flanks are swollen and boggy.

The patient has what is known as anasarca, or general dropsy of the subcutaneous cellular tissue. His abdomen is enlarged, regular in outline, free from pain. On palpation I detect feeble fluctuation, which, however, is largely masked by the thickness of the abdominal walls. On percussion I find resonance all over the surface in front with dulness beginning a little below the nipple line on the sides extending into the flanks. Dulness indicates the absence of the natural gases found in these parts. A solid or fluid material replaces the gas-containing structures. Fluctuation shows this non-resonant material to be fluid. To confirm our diagnosis of the presence of fluid in this abdominal cavity we will note whether this dulness in the flanks is influenced by any change in the position of the patient. As he turns over, I notice that the dulness has disappeared in this left flank, and instead we have tympany extending to the anterior axillary line, while on the opposite side the dulness begins from one to one and a half inches nearer the median line than before. There is then a serous effusion or ascites present here. There is also an effusion in the pleural cavity, which I will not demonstrate to you, for fear of exposing the patient too long.

General dropsy occurs from three prominent causes. In the first place it comes from affections of the blood; second, from disease of the central organ of the circulation, the heart; and, third, from diseases of the kidney. To determine which of these varieties is present, one must study each organ carefully. We start with a study of the function and structure of the organ to which attention was first directed by the patient's complaints. In this case we hear that the urine was diminished and at one time almost suppressed. Examination of the urine reveals the appearance indicative of an inflammation of the kidney. There are several kinds of such inflammation. In the first place there is the acute form, with diminution of the urine or actual suppression. Here the tubules and glomerules are the seat of the process. Under such circumstances and especially in glomerular nephritis, blood is more often present in the urine than in other forms. In addition to the acute form of the disease, we have a form of inflammation in which the process is not so active. Blood is not discharged from the tubules nor leucocytes in such abundance; and we find that the casts and epithelial cells are granular and in fatty degeneration, and free fat may be seen in the urine. The presence of casts in the urine is more markedly indicative of renal inflammation. With a base of hyaline material they vary in character according to the transudation of blood, epithelium and leucocytes, or they may be simply composed of the hyaline substance alone. In the more active form they are bloody, epithelial, granular and hyaline; in the more chronic cases the epithelium is more granular and fatty, and contains fat globules. The main factors in the recognition of inflammation of the kidney is the presence of these casts, along with the presence of albumin in the urine. In acute Bright's disease there is a large amount of transudation of albumin: so much at times that the coagulum fills one-quarter or one-half of a test-tube solidly, on boiling. In the more chronic forms, the albumin, though large in amount, is not so large as in the acute forms. At present this patient fills one-eighth of a tube solidly. There is also a change in the specific gravity of the urine. In the acute and subacute forms it is high. Only small amounts of urine can be secured from this patient on account of its involuntary escape, and we are unable to ascertain its specific gravity. The urine of acute Bright's disease is of a high color, intensely red or smoky, while in the chronic forms it is lighter. A characteristic of nephritis which is often seen is the frequency with which the urine is passed and small amounts voided at a time.

We have here a subacute catarrhal nephritis, a patient with the so-called "large white kidney."

In nephritis there are always, in addition to the occurrence of dropsy, one or two other general changes. The kidney occupies a position directly in the course of the circulatory system, and the heart is always more or less affected in renal disease—hypertrophied. The cause of this is not known. There are several views; some think it is due to obstruction in the renal circulation; others think that as the discharge of urine is less, urea is retained in the circulation, causing

spasm or contraction of the peripheral vessels, while others think the renal change is only a part of a general vascular inflammation, and that endarteritis is present throughout the system. This gives rise to an obstruction, and the heart hypertrophies to overcome the difficulty. The spastic state of the vessels certainly presents, from whatsoever cause, creates high arterial tension, common to all forms of nephritis, and a classical symptom of chronic interstitial nephritis. By examining, daily, the pulse of patients in whom acute Bright's disease may arise, especially in scarlatina patients, we can detect this high arterial tension, and ascertain when renal trouble is beginning. Some authorities believe the renal disease is not a local inflammation, but a part of the general disease, arguing from the fact that the high tension is present before the albumin is found in the urine. Of course, then, our attention is directed at once to a study of the circulation in a case of nephritis. There is, in this patient, no organic heart disease, and, let me state just here, no affection of the blood, no leucocythemia or malaria; and so we decide that this is a case of general anasarca due to the presence of a subacute catarrhal nephritis. There is, however, some increase in the size of the heart, and an examination of the pulse shows a high arterial pressure. The wave as shown by the sphygmograph is sustained, the tracing is broadened at the top, indicating a persistency of the wave. The artery is hard, and the wave persists under the finger very perceptibly. The presence of high arterial tension is further shown by the marked accentuation of the second aortic sound, in its usual location.

The patient complained of headache. This is sometimes a very prominent feature in acute nephritis and is almost always uremic in nature. Whether it is due to irritation of the nerve centres or meninges by blood loaded with morbid material or to alteration in the tension of the cerebral vessels, I cannot say. I am inclined to think the latter. There is also present a marked inflammation of the vessels in the eye-ground, as shown by a direct examination of the eye. There is here present the so-called retinitis albuminurica—an unfortunate condition; because when hemorrhages occur they are very slowly absorbed. In all cases of altered vision, dimness of vision, sudden blindness, hemiopia and diplopia, examine the urine; for often the condition is due to nephritis, either catarrhal or more likely the interstitial form. This is frequently encountered in pregnant women.

The treatment here is important. Some cases of nephritis will not get well in spite of treatment. The acute form usually recovers under rest, liquid food, the drawing of blood from the kidneys by cups to the loins, and by hot applications to relieve the internal congestion. If the case is a grave one, you may use some general depletion as well. Purgation may be resorted to to empty the vessels and to relieve the pressure on the kidneys. The patient must be kept warm, and hot-air baths—the best because the safest diaphoretic—should be employed. Pilocarpine is debilitating, and therefore not safe. Rest and warmth alone will often suffice. The diet should be skim-milk, buttermilk or whey. Digitalis and salts of potassium may be used after the first ten days. The best purgative to use is cream of tartar in lemonade. If not sufficient, it may be replaced by compound jalap powder or elaterium.

In this patient we have the low-grade passive inflammation with degeneration of the inflammatory products. In him we may use slightly stimulating diuretics. Digitalis has been used with hot-air baths, and pilocarpine has been given, with relief, but not sufficient. The dropsy persists, together with the headache and dimness of vision. He has also had constant delirium, worse at night, with persistent delusions, almost as much so as in insane patients. In other words, in this patient we have the classical cerebral symptoms of uremia coupled with those of catarrhal nephritis. We were not satisfied with digitalis, so we placed him on sparleine and caffeine for the head symptoms, twelve to sixteen grains of the latter in twenty-four hours. The grave symptoms of uremia have disappeared; the dropsy is lessened; and the patient is gradually passing into a condition of comfort. His pulse was weak, and on this account stimulants were given, namely, compound spirits of juniper. As the case progresses it will be wise to give a more decided stimulant, to act more especially on the renal epithelium, such as the terebinthinates, minute doses of cantharides, or sandal-wood. Anemia is present, as usual in all cases of nephritis, and it will be necessary to give preparations of iron or minute doses of arsenic or bichloride of mercury.

COMMUNICATIONS.

DRAINAGE IN ABDOMINAL SURGERY.[1]

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The subject of drainage in abdominal surgery is not new, but a wide difference in practice makes it worth further discussion. The object of this paper is to state the indications for drainage, to describe its proper method, to enter a plea for its more frequent use, and to draw out the views and experience of those present who are interested in the matter. If an ideal operation could in every instance be done, the subject of drainage would have but little importance; but practical methods and not ideal ones must be adopted. The great utility of the drainage-tube is in cases of hemorrhage or of sepsis following abdominal section. When bleeding has been apparently controlled by sponge pressure or by pressure forceps, there must always remain some element of doubt as to what amount of secondary hemorrhage will occur after the patient has reacted from shock, or by reason of the dislodgment of minute clots from subsequent movement of the parts. The ability of the peritoneum to absorb even a large amount of serous exudation or blood cannot be denied; and could the absolute asepsis of this quantity of exudate be assured, Nature would undoubtedly do the work of the drainage-tube in almost all instances. Schede's method of healing surface wounds by the organization of blood clot, and that recently-advocated "dry method" of healing such wounds without drainage, might be used in an argument against abdominal drainage; but they depend for their success upon absolute asepsis.

Perfect surgical cleanliness is undoubtedly the aim of every abdominal operator; but most human beings, including assistants, are fallible. Which of us has succeeded perfectly every time? It is noteworthy too that some of the warmest advocates of drainage are at the same time most rigid in their aseptic methods. The fact remains, that after all skill is used some chances must be taken. Does or does not the drainage-tube in all but the simple cases lessen these chances? For example, in the operations on small tumors deep in the pelvis and in pyosalpinx cases, much of the work must be done by the sense of touch alone, and it is impossible to see the field of operation. Time after time it has occurred to men of the greatest skill to cause a small bowel perforation which it was impossible to detect by the eye; or a small amount of infected material has been extruded in a tedious enucleation. If such a case be not drained the surgeon does not rely on his skill for the recovery of the patient, but on the chances that no harm will follow. Again, the amount of secondary oozing, while it may be possible to gauge it in most cases, will in others, for some reason, be unaccountably great. In the writings of all operators of experience one finds reference to fatal cases in which the one regret was that the drainage-tube had not been used. Not to cite wearisome instances the following language of Bantock, *British Medical Journal*, January 22, 1881, may be quoted: "In my earlier cases I did not resort to the drainage-tube as often as I did in my later, and it was not till I had lost a patient under circumstances in which I would now consider it indispensable that I saw the importance and value of the instrument." Again, Thomas Keith, Contributions to the Surgical Treatment of Tumors of the Abdomen, 1885, p. 20, while recommending the tube less frequently than some other skilful men, mentions a case in which the patient died because he did not use it. The quantity of blood which he afterwards found in the pelvis was thin and dark—in other words disorganizing. The same writer in speaking of hysterectomy for fibroids, says: "Nothing has surprised me so much as the amount of almost pure blood that was removed from the pelvis in several of the cases that were drained. Where it came from in some of them remains a mystery to me." In the light of these facts, unless it can be shown that the use of a drainage-tube in itself involves more risk than does immediate closure, the responsibility for a fatal case of this character would rest upon the surgeon.

The chief objections that may be urged

[1] Read in the Section of Obstetrics and Diseases of Women of the American Medical Association, at Nashville, Tenn., May, 1890.

are: the danger of hernia or of fistula of the abdominal wall; the possible infection of the ligature or of the peritoneum; mechanical injury by the tube pressing upon viscera.

These points may be answered as follows: first, a small clean tube, removed in forty-eight hours, will tide over the period of chief danger from hemorrhage and will not, if well managed, interfere with the strength of the cicatrix by the end of the ordinary period of confinement to bed. If the tube be retained longer than this it is for some good reason which outweighs the increased danger of hernia. In cases where it is retained for weeks, it is because it has given exit to materials which would have infallibly caused death if not removed; and its use is vindicated.

The relation to subsequent hernia is an important matter. The tube must be kept clean and after its withdrawal a good closure of the opening be secured, either with a silver stitch previously untwisted, or by having the two lower stitches very close to a tube of small caliber. Far more important factors in the causation of hernia are the strain which results from leaving the bed too early and failure to properly support the abdominal wall with a bandage. Healing by granulation results in dense cicatricial tissue, but plenty of time must be given the process before intra-abdominal pressure is allowed to thin out the cicatrix. In one of the most successful operations of the day for the radical cure of inguinal and femoral hernia, the method of healing is in preference by granulation, but the patient is confined to bed six or eight weeks after the operation. Some of us have heard of laparotomy cases discharged from hospitals in two weeks.

Next to a fecal fistula, one of the most troublesome forms of sinus remaining after abdominal section is due to an infected ligature; and the possible influence of the drainage-tube in causing this infection is worthy of careful consideration. This accident has by some been attributed to the large size of the thread employed for the pedicle, but it has also occurred where the finest silk compatible with safety has been used. The thoroughness with which sterilization of this thread has been carried out before the operation is a matter for the conscience of the surgeon to determine; but an improperly managed drainage-tube is no doubt capable of infecting it. The claim is here made that such infection need not occur if proper care is used. The right management of a drainage-tube is indeed a matter of the greatest importance; and that some surgeons use a tube infrequently is doubtless owing to the fact that this part of the after-treatment cannot be personally carried out, but must be entrusted to others, too often without special skill and experience. As a choice of evils, no tube is better than a badly managed one.

Excessive pressure by the inner end of the tube has caused intestinal fistula. The usual recommendation for preventing this is that the tube should be raised half an inch daily, or oftener, and allowed to resume its place.

Another point of greater importance is lateral pressure caused by the sliding of the external dressing. If this is not watched, a powerful leverage pressure is exerted, especially by a rubber adhesive plaster dressing, the wound in the abdominal wall acting as a fulcrum.

Too much attention cannot be paid to the maintenance of an absolutely sterile area in and about the apparatus. The same precautions should be exacted from a nurse in emptying and dressing a tube as would be required in exposing the entire wound. Its caliber, whether or not filled with gauze or wicking, should be cleansed by some antiseptic solution, such as a saturated solution of boric acid, after the first forty-eight hours.

The mouth of the tube should never be stopped by a cork, as has been recommended, nor should a sponge be used as a cover. A large pad of absorbent cotton kept closely applied to the opening will serve perfectly to exclude the sources of decomposition; while all excess and dripping of discharge upon the rubber sheeting should be most carefully removed by a strong antiseptic solution, such as 1 to 1,000 mercuric bichloride; the rubber itself being occasionally removed for the purpose. It cannot be too strongly urged that the same rigid attention to cleanliness should be observed as in redressing a stump after amputation. One point in which nurses are careless is in handling the syringe. When the compression bulb syringe of Tait is used for suction, the bulb must never be compressed after the nozzle is put in the drainage-tube, but always before its introduction. Let the syringe be kept filled with an antiseptic when not in use; let the tube itself be light in weight and of small caliber; let powdered boric acid be used freely outside about the

main dressing where the tube comes through, if any moisture be present; let the tube be kept empty; when the discharge is slight, let the glass be replaced after twenty-four hours by a smaller rubber tube, slipped inside before the first is removed; and after another day let this be removed, its mouth having been kept well covered by absorbent cotton meanwhile. So managed, a drainage-tube is a safeguard and not a menace to the case.

A practical question is, when to drain. Certainly not in operations of the simplest character, which have been rapid in execution, where there have been no adhesions, little handling, no effusion and no pus. The cases where it is advisable are: where adhesions have been abundant and where oozing continues; where hemorrhage has been free and the patient is weakened; where the intestine is of doubtful vitality or where it has been stitched or resected; when the patient is old; when the peritoneum is diseased; when pus has escaped or a colloid cyst has ruptured; when there is septicemia or pyemia; when irrigation has been used; when much ascites is found. Finally, in all cases of doubt, drain.

A single case may be cited to illustrate the importance of drainage in septicemia. A woman who had been ill since an attack of puerperal fever nine months before, presented herself suffering greatly and with a tumor reacting to the umbilicus. Laparotomy disclosed an ovarian cyst containing nearly two quarts of pus, with abundant and most formidable organized adhesions to everything touched. The cyst wall was friable, dark and badly degenerated at several points where rupture would apparently soon have taken place into thickened and adherent bowel. The growth was with difficulty entirely removed. The drainage-tube was used for two days, nothing coming away but clear serum, though this was abundant for twenty-four hours. The patient recovered promptly and remains well. Notwithstanding that the day before operation the temperature was 104° and the pulse 150, the former did not exceed 99.5° in the two weeks succeeding the removal of the cyst. Now this woman, in my opinion, owed her life to the drainage-tube. Not because it carried off blood—for there was none; not because it drained a peritonitis—for there was none after the operation; but because in the poisoned condition of her system, as shown by pulse, temperature and emaciation, the quantity of serum removed by the tube would not have been absorbed, pus would have formed or peritonitis would have occurred and she would have lost her life.

TREATMENT OF DISEASES OF THE RESPIRATORY ORGANS WITH DRY INHALATION.[1]

BY O. A. DEAN,

SOUTH HAVEN, MICH.

The profession seems to have got far away from the old idea of sthenic conditions in diseases, in these as in other organs, demanding depletion and depressants, and to have settled rather upon the belief that all disease is asthenic. Pneumonia is no longer combatted (?) by blood-letting or hardly by veratrum, but is treated with stimulants, tonics and rest, which is another form of tonic. Typhoid fever is no longer starved or dried up, but is fed and stimulated and controlled. And if this be true in acute, much more is it true in chronic diseases of whatever nature, and I believe that those measures which have been most effectual are those which have had most of tonic element in them. Latterly the profession has had much to say of microbes, bacilli, cocci, etc., and has come to recognize that these low organisms flourish in asthenic conditions and unhealthy surroundings, and that our germicides have accomplished their object *pari passu* as these untoward concomitants have been eliminated. We have essayed to treat and to cure diseases of the mucous membranes, especially catarrhal, not by depletants but by stimulants and antiseptics of various kinds, at the same time building up the general strength by tonics. We have devised numerous instruments for applying sprays of various kinds, and the seller has been profited, perhaps the patient benefited, but how seldom cured; and they have left us after a time to submit themselves to the irregular practitioner who makes the most specious promises and charges the largest fee "for medicines only."

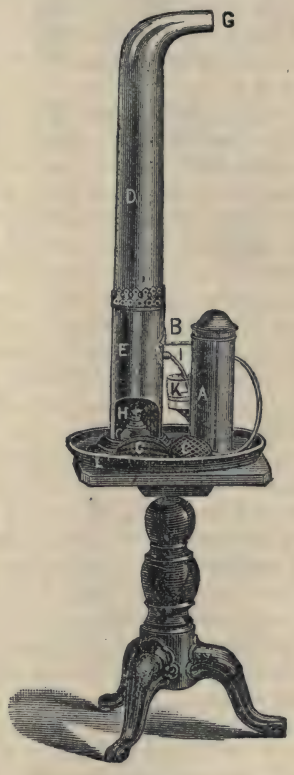
In view of our failures, the query is pertinent, would our efforts have succeeded if differently directed? We believe that in these catarrhal affections local applications are

[1] Read before the Section of Practice and Medicine of the Michigan State Medical Society, at Grand Rapids, Michigan, June 19, 1890.

necessary or very beneficial, but we know how difficult, nay impossible, it has been and is to reach the mucous membrane with any of the ordinary means. Our sprays might be good if they could be applied where wanted, but "there's the rub." In the nasal passages in favorable cases we could reach the inferior, and in a measure, the middle, sinus; but the superior scarcely at all. We could get a spray as far as the larynx, but only very sparingly into the large, and not at all into the finer bronchi; and so our antiseptics have failed to reach the abscess or vomica, or germ-laden bronchial tubes, and we have been obliged to depend on the general measures hinted at to accomplish our ends.

On the other hand, we have learned through our own, or the observations of others, that dry impalpable powders can and do penetrate to the finest ramifications of the air tubes and vesicles, as shown by the lungs of coal miners and others. Perhaps we have been made to realize it in our own persons after rides over dusty roads, or possibly in our younger days by standing behind a threshing machine, and expectorating dust for two or three days afterwards.

I therefore advocate to-day a trial of this method therapeutically. If we can deposit on the mucous membranes medicinal substances in impalpable powder, or in condensable vapor, we shall reach directly the diseased parts and produce effects upon them proportionate to the potency and strength of our remedy. The instruments which I have the pleasure of showing you are constructed for this purpose, and are the outcome of an idea of a Mr. Lindegaard, a photographer of Christiania, Norway, himself afflicted for many years with phthisis, who conceived the idea that nitrate of silver should be a remedy of value in that disease. To test the subject he had constructed a close room, the air of which he impregnated by some secret process with the remedy, and breathed it at stated intervals. He soon began to improve, and induced others to try it also; but the experiment was soon discontinued on account of the discoloration of the skin which resulted. Meantime he had become well and strong. Fifteen years afterwards he was drowned, and an autopsy was made by physicians who had known of his previous condition and recovery, who found firm cicatrices of former cavities, and evidences which satisfied them that they were the results of his experiments upon himself; and one of them expressed his belief that nitrate of silver in impalpable powder, the quantity of which could be controlled, would prove a wonderful remedy. Mr. F. Störmer, a civil engineer, to whom the remark was made, soon after produced an instrument which he called the "Störmer Norwegian Inhaler," of which this is a modification which seems to fulfil the requirements. It consists of a heater, partly of metal and partly of glass,



so constructed that air can be admitted at the base heated, and discharged at the upper orifice. Into this heated current of air a fine spray is thrown, through an opening provided for the purpose, from an atomizer. This spray is immediately vaporized, and if a liquid will be inhaled as vapor, or if a solid, will be crystallized and inhaled as a dry powder, in either case issuing in an invisible condition. To demonstrate the verity of the action I show you a card with spots made by exposure for specified times and to various strengths of nitrate of silver. This card was simply moistened with water that the dry crystals might the more easily adhere. On another card is seen the action of iodine upon starch, both demonstrating the

fact that the amount of impression is perfectly under control. That this impregnated air when respired reaches the fine bronchial tubes would be expected, and has been proven by experiments upon animals which I need not detail. Further than this, and as indicating that the scope of this method of medication may be broader than here set forth, it has been shown that inhalations of a mercurial salt have produced ptyalism; traces of iodide of potassium inhaled are found in the urine, and turpinal and santal give to the urine the characteristic odor of the violet, and modify catarrhal conditions of the bladder.

Though the apparatus was first intended for the administration of nitrate of silver only, and this still occupies the first place, various other medicines have been used, such as iodoform, phenol, phenol-camphor, iodine, etc. Among these, for the sake of brevity, I shall speak particularly only of the first. Experience with it has extended over some three years in Europe, by such men as Dr. Bidenkop, State Physician of Norway; Dr. Bugge, of Ringsacker, C. Blomberg, Physician in charge of National Hospital of Norway; Dr. Leij, member of the Society of Medicine, Society of Hygiene and Public Medicine of Paris, France, and others. The latter in October, 1889, wrote to Mr. Störmer as follows: "I have been using these last eight months your inhaling apparatus, and am very much pleased with the results. In all catarrhal affections, laryngitis, chronic bronchitis, pharyngitis, rhinitis, etc., its effects are remarkable, prompt and of incontestible efficacy. It is a unique and marvellously appropriate means of enabling inhalations of medicinal powder to be carried deeply into the respiratory organs, a result never before obtained. I believe that this power of deep penetration, being undeniable, if the bacteria and the bacilli of well characterized diseases must be attacked before they have time to infect the organism, it is with this instrument it should be attempted, and that with it one may hope to succeed." Later, in the *Bulletin de Thérapeutique*, March 15, 1890, Dr. Leij reports the clinical results of his use of the inhaler as follows:

"Since January 31, 1889, when we placed the Störmer apparatus in our clinic, we have subjected to this treatment one hundred and nine patients, whom we will divide into two classes, those having and those not having tubercles:

First Series.

Pulmonary phthisis	53
Phthisis of larynx	6
	59

Results.

Died	11
Cured	18
Relieved	15
Disappeared or stationary	9
Still under treatment	6
	59

"The eleven who died had reached the third stage of the disease, and only a few treatments were possible. As for the others the improvement was steady, and the average was three or four months with eighty or ninety treatments. The microscopical examinations of the sputa was made several times during the treatment for those having tubercles, and we found that, after five or six weeks, the bacilli had sensibly diminished, while in those cases pronounced cured they had altogether disappeared at the end of the third month.

Second Series.

Chronic laryngitis	19
Bronchial catarrh	14
Nasal "	5
Purulent pleurisy	3
Asthma	9
	50

"All the patients of this series have continued the treatment until cured, the treatments varying in number from twenty to thirty."

Eliminating in the first series the eleven cases which were too far gone to be benefited, and the six reported as still under treatment, there remain forty-one cases; and it is seen that forty-four per cent. of these were cured—a showing which no other method of treatment can make, and which may encourage us in the hope that some time some of the odium which has attached to our treatment of this dreadful disease may be removed.

The instrument is new in this country. In November, 1889, Mr. E. Hoell, exclusive agent of the Störmer Inhaler, established in Chicago an institute to demonstrate its use and effectiveness, employing a competent physician to diagnosticate and prescribe for

each case, and physicians were invited to call and to investigate or to send patients for treatment. In answer to my inquiries, Dr. B. M. Behrens, who first acted as physician in charge, wrote me, under date of May 12, that he had been highly impressed with the marvellous apparatus as being undoubtedly a thing with a great future. In the short time he had used it he had seen its best effect in atrophic conditions of nose and throat, and when the atrophic condition has been of not too long standing, with much wasting of tissue.

Dr. F. E. Crafton, of Chicago, endorses the language of a colleague abroad, who says: "We recognize the right of any one to inquire if the patients we consider cured are so in fact, and whether they may not fear a return of the disease. In most cases we have observed the process of the healing and cicatrizing of the lesions. We have satisfied ourselves by percussion and auscultation of the fact of the slow but steady and gradual disappearance of the pathological symptoms and of the bacilli, and after the lapse of many months, after the treatment has been stopped, these phenomena being still more manifest, we believe ourselves authorized to consider these cases cured."

Dr. B. Meyer, of Chicago, also expresses warm appreciation of the usefulness of the apparatus and method.

A partial list of patients treated at the Chicago Institute since January 1, indicates that every case treated has been relieved or cured, none remaining stationary or retrograding. The Institute being merely for the demonstration of the apparatus, the manager has made no special effort to let the work be known, except to the medical societies, physicians, etc.

My own experience with the inhaler is yet too limited to be of great value, but little more than a month having elapsed since I first saw the apparatus. I have prescribed its use in cases of catarrh, chronic follicular pharyngitis and bronchitis, and have used it in my own person for subacute and chronic laryngitis. Having been troubled for years with the chronic form, upon recently taking cold I suffered a violent exacerbation, attended with intense irritation and oppression of the respiration. A single treatment sufficed to relieve the violence of the symptoms, and three to restore me to about the usual conditions; but continuing the treatments in a rather desultory manner for the benefit of the chronic trouble, I have found my voice improving, so that I can now use it better than for a long time. In a similar case of one of my patients, where the patient was unable to speak aloud, the voice was restored in three treatments, whereas in previous attacks two or three weeks had been required for the same end. In every case that has come under my observation the patient has expressed gratification at the obvious effect as well as the agreeableness of the treatment.

The propositions of this paper, then, which I believe can be successfully maintained are:

1. By means of an impalpable dry powder, or a vapor-laden atmosphere, we may more surely reach diseased membranes than in any other manner.

2. Heated air is capable of holding medicinal substances in these forms while they are conveyed to the extreme ramifications of the bronchi.

3. The effect can be proportioned to the susceptibility and requirement of each case by the strength of the solutions.

4. Heated air acts as a stimulant and assists the action of the contained remedies.

5. The Störmer Inhaler fulfills the indications for administering medicines in the form of powder or vapor.

6. Reports of its use thus far received indicate that it gives promise of great utility in the treatment of incipient phthisis and of nasal and bronchial troubles.

7. Its use does not preclude the administration of other usual remedies, but it may assist their action.

8. From the fact of absorption having been shown in a certain proportion of cases we may hope much in the way of systemic as well as local treatment.

As previously stated, nitrate of silver has been the principal agent used with this atomizer, because it is one of the best. It is given in solutions varying in strength from 1 to 1,000 to 1 to 100. The effect will vary with the susceptibility of the patient and the strength of the solution.

Not infrequently the inhalation produces perspiration, coughing, more or less violent, and at times a feeling of oppression across the chest, all of which soon pass away. If a strong solution has been used there may follow for some hours some irritability of the membranes, ending in increased and then decreased secretion. The general effect of the inhalations is rather exhilarating. In cases of acute coryza, simple sore throat,

or tonsillitis, the use of a solution of tincture of iron and chlorate of potassium checks it almost at once. In cases of diphtheria or croup it is obviously the best method of exhibiting our local remedies, be they simple lime water or sulpho-calcine.

I need not stop to enumerate the many remedies which may be used. The physician will not be at a loss to find something which he can use to advantage. Inhalations are usually made daily, although with some of the stronger solutions it is advisable to make them every other day. The sittings may vary from five to twenty minutes, but usually fifteen minutes is long enough with an equal interval of rest between.

EXCISION OF HEMORRHOIDS.[1]

BY CHARLES B. PENROSE, M. D.,

PHILADELPHIA.

My object in presenting this paper is to urge the more general use of Whitehead's operation of excision in the treatment of certain cases of hemorrhoids.

In 1887, Mr. Whitehead, of Manchester, reported three hundred consecutive cases of hemorrhoids which had been successfully treated by the method of excision and suture. His operation is performed in the following manner:

1. The patient is placed on a table in the lithotomy position, with the hips well elevated.

2. The anal sphincters are then thoroughly paralyzed by digital stretching.

3. The mucous membrane of the rectum is divided at its junction with the skin around the entire circumference of the bowel.

4. The mucous membrane, with the attached hemorrhoids, is dissected from the submucous tissue, and the cuff or cylinder thus formed is dragged below the skin margin.

5. The mucous membrane above the hemorrhoids is then divided transversely, thus removing the pile-bearing area, and the operation is completed by suturing the upper margin of the severed membrane to the free margin of the skin.

The advantages claimed by Whitehead for this method of treatment are based on pathological and on surgical reasons. He considers that the internal hemorrhoids, which are generally regarded as localized distinct tumors, amenable to individual treatment, are, as a matter of fact, component parts of a diseased condition of the entire plexus of veins surrounding the lower rectum, each venous radicle being similarly, if not equally affected by an initial cause, constitutional or mechanical. The operation of excision is the only one which removes this whole diseased area. It is, therefore, demanded for this pathological reason. It is, in addition, surgically more perfect than any other method of treatment, because it provides for the readjustment of healthy tissues with the object of securing primary union and rapid convalescence. It does not leave the sluggish ulcer of the cautery, nor is it attended with the pain and slow convalescence of the ligature.

My experience with this operation is limited to ten selected cases. Only those cases were selected in which there existed a complete circle of hemorrhoidal tumors surrounding the lower margin of the rectum, since for such cases Whitehead's treatment of excision seems to be most particularly adapted.

The details of the operation are simple and easy to execute. In dividing the mucous membrane from the skin it is best to begin at the posterior margin of the anus in order to prevent the blood from obscuring the field of operation. No skin should be sacrificed, even though there appear to be redundant tags around the margin of the anus. The skin always retracts somewhat and the tags shrivel and disappear before firm union has taken place. Failure to observe this rule may result in subsequent serious trouble. Kelsey reports the case of a woman who had been subjected to a so-called Whitehead operation and who presented herself to him with a complete circle of excoriated mucous membrane, extending for one inch outside the anus. It is probable that in this case the operator had sacrificed too much skin. On the other hand, the upper section of the mucous membrane should be made in the same horizontal plane throughout, in order to prevent subsequent ectropion ani. The dissection of the mucous membrane from the underlying tissue is exceedingly easy except in some cases of old—or long standing—piles. The attachment of the submucous tissue is very loose, and separation can be effected with

[1] Read before the Philadelphia County Medical Society, September 24, 1890.

the finger or with the handle of the scalpel. It is not always possible to dissect the piles completely from the underlying structures, as they may involve not only the mucous but the submucous tissues, and in such cases it is necessary to cut partly through the piles until the healthy mucous membrane above is reached. Repeated attacks of inflammation of course render closer the adhesion of the pile area to the underlying structures. In one of my own cases, where the piles had existed for forty years and had frequently been inflamed, the adhesions to the two sphincters were so close that a few muscular fibres were cut away during the removal.

The amount of blood lost during the operation is surprisingly small. Whitehead states that he has often operated on severe cases and not found it necessary to twist a single vessel. In five of my cases no hemostasis was necessary. Bleeding is avoided by adhering closely to the mucous membrane in the dissection, as the larger arterioles lie beneath the submucous tissue. The arterial bleeding occurs in those cases of old piles which have been subjected to previous operation or to attacks of inflammation, and in which dilatation of the rectal and anal arteries has taken place secondary to dilatation of the hemorrhoidal veins. The bleeding from the upper divided edge of the mucous membrane can be reduced to a minimum by following Whitehead's method of inserting the sutures as each portion is divided, or by adopting Marcy's plan of introducing a circle of shoemaker stitches of catgut around the mucous membrane above the piles before cutting the mass away. Whitehead's advice is in all cases to remove the complete cylinder of mucous membrane, whether or not the whole of this area appears to be diseased. He gives this advice for the reason which I have already stated, that he considers the individual piles as but part of a general pathological condition, involving all the lower hemorrhoidal veins of the rectum. Whether we accept this pathological view or not, it is best to follow this plan, and to make a complete circular division of the mucous membrane, as by this method the best surgical results are obtained and ectropion ani prevented. I have seen a case in which only one-half of the circumference of the mucous membrane of the rectum was removed, and a few hours after the operation an œdematous swelling formed in the other half, which has now resulted in a hemorrhoidal tumor almost as annoying as the one for which the operation was performed. In attaching the mucous membrane to the skin, Whitehead uses the interrupted silk suture. He never removes the sutures, but allows them to ulcerate through—a process which is very easily accomplished. In my own cases I have used the continuous catgut suture.

The treatment of these cases after operation is very simple. It is rarely necessary to use opium or the catheter. An opium and belladonna suppository introduced immediately after the operation, is in most cases all that is required. The bowels can be moved in from twenty-four hours to four days, and with very little pain. Absence of pain after Whitehead's operation is due to the thorough paralysis of the sphincters, and to the fact that no source of irritation is left beyond that of a clean linear incision, united without tension and without strangulation of tissue.

A glance at the histories of my own cases shows that they were all cases of aggravated hemorrhoids, in which the piles covered the whole circumference of the lower part of the rectum. In all the cases the disease had existed for many years, and two had been subjected to previous operation by the ligature. In only one case was there anything like free bleeding during the operation. In all the cases a suppository of one-half grain of extract of opium and one-half grain of extract of belladonna was introduced immediately after the operation, and this was all the opium required except in three cases, in which one-sixth grain of morphine was subsequently administered. The catheter was used in only three cases, and in these for a period not longer than twenty-four hours. The length of time the case is confined to bed depends to a great degree upon the social standing and the disposition of the patient. In my cases it varied from two to ten days. Every case should be able to sit up in four or five days, and to resume work in ten days or two weeks. The bowels were opened without pain in from twenty-four hours to four days after operation. No complications of any kind followed these operations. Union takes place quickly, and generally one dressing, taken off when the bowels are moved, is all that is necessary. In no case was there incontinence from paralysis of the sphincters, or any tendency to stricture, from contraction of the scar.

Since the publication of Whitehead's paper his method of operating has been tested by many surgeons. The operation cannot be criticised on surgical grounds, as it is certainly the most perfect plan of treatment, surgically speaking, which has been proposed. The immediate removal of the tumors, the coaptation of healthy tissues, and primary union, are substituted for slow strangulation by the ligature, or removal by the cautery and healing by granulation. The applicability, or the necessity, of this operation in all cases of hemorrhoids, is, however, open to criticism. If we accept Whitehead's views in regard to the pathology of piles, and believe that the whole venous plexus surrounding the anus and the lower end of the rectum, is in a pathological condition in every case of hemorrhoids, even though there may be present only one or two isolated tumors; then, of course, the complete removal of this area is indicated. But, that this view is not true is proved by the thousands of cases which have been permanently cured by the ligature and the clamp. The method, however, is indicated in all cases of aggravated hemorrhoids where the vascular tumors cover the whole or the greater part of the circumference of the bowel. In such cases the operation presents no great difficulties. Statistics show that it is at least as safe as operation by the ligature or the clamp, and it is certainly followed by a more rapid convalescence, and much less pain and discomfort.

STATISTICS OF ILLEGITIMATE BIRTHS.

BY WM. M. CAPP, M. D.,

PHILADELPHIA.

Statistics of illegitimate births, from the nature of the case, cannot always be accepted as accurate; yet in a general way they may be taken as indicating to some extent the social condition, the tone of morals and the state of education among the people at large. Under most of the governments on the continent of Europe, more attention than among us has been given to collecting data upon this subject and presenting it in suitable form for reference. Although the opinion seems to be prevalent that illegitimacy has been on the increase during the present century, careful students of statistical tables and of social conditions after investigation have arrived at an opposite conclusion, and hold that there is from year to year a gradual improvement in the matter. W. G. Lumley, in an endeavor to settle the question in 1862, went into a most elaborate investigation of the subject, using in his researches all the official information obtainable, and concluded that the proportion of such births in Europe was neither as great as popularly believed, nor was it as great then as it formerly had been. The results of his labors are published with many formulated statements in volume XXV of the *Journal of the Statistical Society of London*. Dr. Newsholme, in his *Elements of Vital Statistics*, published in 1889, gives tables upon the subject covering the period of 1876 to 1886 in England, and draws therefrom similar conclusions as to that country. Among many other subjects this one receives its share of attention at the hands of Alex. von Oettingen in his volume entitled *Moralstatistik*, published in 1882.

In London in 1866, the proportion of illegitimate births to legitimate was 3.9 per cent., or about four in each one hundred, and this was also the average rate for the years 1876 to 1886 inclusive. During the same period in all England, Newsholme places the average at 4.8 per cent., and at 4.7 per cent. for the year 1886; while Block, in his *Treatise on Theory and Practice of Statistics*, for the years 1865 to 1883, inclusive, finds it to be 5.27 per cent.; and von Oettingen for 1865 to 1878, inclusive, finds the average proportion for England and Wales to be 5.43 per cent. So also the rate for Edinburgh is 8.9 per cent., while for all Scotland it is 9.7 per cent.

The figures for these countries are remarkable chiefly as presenting a variation from the general rule, which almost invariably elsewhere shows higher figures for the cities than for rural districts and for the country at large. As reasons for this anomaly in Great Britain we find chiefly the complete system of poor-laws and the extensive establishment of alms-houses in the rural sections. In Scotland there is an additional reason in the peculiarity of the law which legitimizes any children which may have been born to a couple who afterwards are legally married. This has its influence upon women who are willing to trust to their ability in the future to induce the man to consent to a legal marriage in case children are born. As a rule it is found, as would naturally be supposed,

that many cases of pregnancy outside of wedlock find their way to the cities, because there more ample hospital provision is offered and shame is more easily hid in the crowd. Besides that, cities receive the tide of surplus and floating population in all countries.

Ireland presents an average of 2.73 per cent. for the years 1865 to 1878, inclusive, which is probably the lowest rate of any population of considerable size in Europe, of which we have data. This sustains the reputation which its women have long enjoyed. Certainly in our own land, to which so many of its young women have come, they have given no public cause of complaint, and in the matter of personal chastity compare favorably with any other class. In their own country it is said that deviations from rectitude in this respect so overwhelm the delinquent with reproach and shame—and especially in rural districts—as to make a continued residence there in most cases practically impossible. Emigration, however, is always a ready resource to cover up the evidences of the fault.

The figures of illegitimacy for continental cities in recent years are as follows:

Vienna, 50.6 per cent. in 1867; 41.9 per cent. in 1877; 44.1 per cent. in 1879.

Prague, 49.6 per cent.

Rome, 44.5 per cent.

Stockholm, 40 per cent.

Moscow, 38 per cent.

Paris, 28.5 per cent.—(in 1886, 24.42 per cent.)

Copenhagen, 25 per cent.

Brussels, 22.5 per cent.

St. Petersburg, 20.2 per cent.

Lisbon, 21 per cent.

The figures for continental countries are given as follows, the averages being chiefly for the years 1865 to 1883, inclusive:

Bavaria, 15.24 per cent.

Austria, 13.5 per cent.

Sweden, 10.17 per cent.

German Empire, 8.7 per cent.

Norway, 8.49 per cent.

Prussia, 7.50 per cent.

Hungary, 7.45 per cent.

France, 7.41 per cent. (In 1886, 8.2 per cent.)

Italy, 7.55 per cent. (Ranged in 1863 to 1879 from 6.7 to 8.4 per cent.)

Belgium, 7.08 per cent.

Spain, 5.53 per cent.

Switzerland, 4.78 per cent.

Holland, 3.49 per cent.

Thus it appears that while in the city of Vienna about 50 per cent. of all births were illegitimate, in Austria at large the percentage was 13.5 per cent.; and while Rome had 44.5 per cent., Italy together showed 7.41 to 8.4 per cent.; Paris had about 28.5 per cent. and France 7.41 to 8.2 per cent.; Brussels 22.5 per cent. and Belgium 7.08 per cent.; Stockholm 40 per cent. and Sweden 10.17 per cent.; and so with other large cities, all of which, as compared with countries, show much larger percentages of illegitimate births.

In Great Britain a majority of the births take place in alms-houses, and are of course among the pauper population, and a very large proportion of the mothers belong to the illiterate class, being unable to read or write their own names. It must be borne in mind, however, that there those of more intelligence can easily evade the true record against themselves if they are so disposed, and reports doubtless are inaccurate. On the continent, among the lower classes probably less shame is felt, and the authorities are more attentive to accuracy in recorded information upon this point.

In most of the large continental cities lying-in hospitals are freely accessible to all, and recently, with a view to lessen the frequency of the crime of abortion and to remove some of the temptations thereto, regulations have been introduced, in some of the more prominent in Germany, for the preservation of the utmost secrecy for such mothers as desire it, so that their identity is not disclosed even to the hospital authorities. Each patient is known only by a number given her upon entering, a duplicate of which is written upon a sealed envelope in which she has enclosed her name, the address of friends and any other items she may choose, and which is returned to her unopened upon her departure from the hospital without mishap. The child is taken with her, or may remain a ward of the State at her option.

The practice of keeping large standing armies discourages marriage, and some of the laws, by placing obstacles in the way, have had a similar effect and probably in a considerable degree have increased the proportion of illegitimate births; for, as has been shown by other writers, nature in her efforts to people the earth will not be thwarted, and population increases in spite of the artificial restrictions of convention or civilization. Indeed, as the foundling asy-

lums contribute so largely to the ranks of the armies, it has not been to the interest of the countries requiring large bodies of men to be constantly in camp and fortress, to strenuously discourage illegitimacy. The recognized system of concubinage in most of the large cities of Europe also tends to increase the proportion.

If the food supply is the ultimate factor in regulating the number of legal marriages in any given time in a country, it may in like manner influence the percentage of illegitimacy, as some of the statisticians have undertaken to show in their tables. Low wages, scarce food, little work and enforced idleness, may make the attainment of honorable marriage appear beyond reasonable expectation, and so offer an apology for license.

The official figures from which information on this subject is obtained, do not embrace abortions, premature births and still births. Allowances also are to be made for misrepresentations which render the records inaccurate. To this extent the statistics come short of being worthy of absolute reliance.

In our own country statistics upon the subject are not obtainable, or if so, cannot be relied upon for accuracy, owing to loose methods in recording them, and to the facilities allowed for misrepresentation, which, on account of public opinion, is most generally resorted to. Hence comparisons cannot be made with other countries. Doubtless the general absence of foundling asylums, the restrictions often imposed in the admission to lying-in hospitals, and a general feeling of aversion to delinquent mothers and fatherless children cause the crimes of abortion and infanticide to prevail more among us than in countries where more practical and broader ideas of charity and more unprejudiced impulses of humanity are in vogue.

In Philadelphia, up to the present time, no efforts have been made to keep records upon the subject except for the years 1888 and 1889. In the former the total number of births was 26,296, of which 649 or about 2.8 per cent. were reported as illegitimate; in 1889 the total number was 27,491, of which 814 or about 2.9 per cent. were illegitimate.

—Euxanthone, the coloring principle of the very expensive yellow Indian dye known as piuri, has been artificially prepared by M. Groebe, a Swiss chemist.

FOREIGN CORRESPONDENCE.

LETTER FROM ENGLAND.

SHREWSBURY, September 3, 1890.

"The bold situation of the town, girdled by the health-bearing breezes of a beauteous river, gives a striking and majestic appearance to Shrewsbury." The foundation of this town goes back to about the year 600, and it is about the only town in England which was not founded by the Romans. The ancient history of this city is particularly interesting. One of the most decisive battles in early English history was fought here. Shakespeare in his "Henry the Fourth" mentions it. The ancient black and white houses are probably as interesting to one from the new world as Melrose Abbey or the walls of Chester. These timber houses, of which there are many, date back to 1500. Many have dates placed upon them telling the year in which they were built. I noticed several 1505–1534, etc. They have projecting stories sustained by elegant brackets and the angle uprights enriched with small pointed arches carved with trefoil, the wood black and interspaces of white plaster. Shrewsbury is not on the line of the ordinary route of travel; and the globe-trotting American has not as yet found out its beauties, and much less would one expect a wandering physician or surgeon to turn his footsteps towards this very ancient and unique English city, to find anything new or novel in his line of work. And yet the town is not without its medical history; for here Henry I (1100) built a church where services were held for a *hospital* of lepers. St. Giles's Hospital was originally established for the reception of persons afflicted with leprosy, which disease was brought back from Palestine by the Crusaders. Henry II granted to it thirty shillings yearly (about $400 of modern currency) of the rent which he received from the sheriff of Shropshire, towards the support of the infirm or diseased occupants. While leprosy is a disease not known in England to-day, yet the original grant of money is still paid; for "the poor ye have always with you." Shortly after the founding of the above hospital Earl Roger de Montgomery built and supported an infirmary within the precinct of the Abbey "as an asylum for diseased and superannuated monks," a fragment of which building yet remains. The present hospital is a large, commodious building with all the

modern conveniences, where aseptic surgery is just as successful as the antiseptic. At the top of the building, on a tablet, is the following inscription:

Salop Infirmary.
Established 1745.
Supported by Voluntary Subscriptions and Benefactions.
Rebuilt 1830.

The eye and ear hospital was founded in 1818. To-day one of the finest and most thoroughly equipped buildings in the kingdom occupies the place of the old one. It was found that its usefulness necessitated a larger building, and the Board of Trustees in 1881 built the present hospital.

Dr. Wm. Charnley, the surgeon to the institution, is best known to fame as the author of the article on Retinoscopy in Morton's book on Refraction. Dr. Charnley's reputation, among the English writers on refraction as a master of mathematics, is so high that he has during the last few years corrected and revised no less than three well-known treatises on refraction. Dr. Charnley, like many others who have given retinoscopy some years of trial, finds that it is not easy to learn nor easy to execute; and, while it may be of undoubted advantage in cases of illiteracy of young children, and in hospital work, yet in private practice it is useful only in confirming what trial lenses have already told one.

The number of new cases applying for relief at the hospital here this year has been about two thousand. There have been two hundred and sixty-five chief operations, including forty-seven extractions of cataract and forty-eight iridectomies. Of the cataract operations, forty-four were followed by good vision. Dr. Charnley, in performing cataract operations, makes a modified Graefe cut with a very small iridectomy. The patient's eyes are immediately bandaged with very light aseptic dressings. After twelve hours these dressings are removed, the lower lid of the operated eye is depressed to allow the accumulated tears (if any) to escape; then the eye is bathed with a mild boric lotion, followed by one instillation of atropine (four grains to the fluid ounce). The eye is not examined for twenty-four hours, when a similar treatment is applied. After three days the bandages are dispensed with, the patient only wearing a shade, the light in the room being modified by blinds. As is usual with all careful surgeons, the first two dressings are made by Dr. Charnley; the trained nurse looks after the subsequent treatment. Dr. Charnley regrets that his success in chronic glaucoma has been almost nil. The subconjunctival operation is performed for strabismus. The full emmetropic correction is given, and the glasses are ordered to be worn constantly. Ulcers of the cornea are treated with that standard remedy, yellow oxide ointment, a fuller strength ointment, with atropia sulphate combined, being prescribed. Some observers have noted the predisposition of the Welsh nationality to *retinitis pigmentosa*. At this hospital, where at least one-third of the patients are Welsh, this disease is not common. A curious case of connective-tissue growth in the fundus oculi presented itself on the day of my visit. The singular part of the young man's history was, that he discovered only two days before that he was totally blind in that eye (the left one). An examination with the ophthalmoscope revealed the growth. Had this young man received an injury to that eye, he would have been under the impression that the injury had caused the loss of vision. Yet he had never used his left eye since birth, as it is now well understood that such growths are embryonic.

The management of this hospital is most excellent, and, to prevent an indiscriminate abuse of its charity, every patient is obliged to bring a recommendation from some annual subscriber that he is deserving and worthy. Accident cases are exempt from this rule. They, however, after one treatment, are obliged to conform to this regulation. A private ward is in use for patients who can pay. The institution, being essentially a charitable one, is kept for all the purposes for which it was founded; and, in justice to the "proud Salopians," it is not abused.

L. Webster Fox, M. D.

Child Suicides.—From January 1 to September 1, 1890, 62 children—46 boys and 16 girls—committed suicide in Berlin. Of this number 24 had attained the age of fifteen, 14 their fourteenth year, 9 their thirteenth, while 7 were only twelve years of age, and one had not attained the age of seven. In most of the cases the immediate cause for the act remains a secret, but it is supposed to have been due to exceptional severity on the part of servants or teachers.

PERISCOPE.

Treatment of Pertussis with Bromoform.

Dr. Louis Fischer, attending physician to the Children's Department of the German Poliklinik, New York, says, in the *Medical Record*, September 6, 1890:

Bromoform, $CHBr_3$, is a colorless liquid, boiling at 151° C., and solidifying at 2.5° C. Its specific gravity is 2.83 at 0° C. It is produced by the action of bromine upon alcohol in the presence of an alkali. In practice milk of lime is saturated with bromine, alcohol added, and the mixture distilled. In 1849 Nunneley and Schuchard called attention to bromoform as a possible anæsthetic, and in 1869 Rabuteau brought the drug forward as a new anæsthetic.

Given to the lower animals by inhalation or hypodermic injection bromoform produces rapid narcosis, in which, according to the researches of Von Horoch, the breathing is not noticeably lessened and the pulse remains full, regular and strong. Although the blood-pressure is distinctly reduced, the heart is said not to suffer from the influence of the drug, and the peripheral vagi are not affected. Further, as powerful irritation of a sensory nerve has no influence upon the blood-pressure, it is probable that the fall is the result of vaso-motor paralysis, which is confirmed by the rapid sinking of the temperature. The excitability of the cerebral psycho-motor centres and the general reflexes are entirely destroyed. Von Horoch has used the bromoform as an anæsthetic in several cases in man. The most marked symptom was excessive cyanosis of the face. The urine passed after recovery contained bromine.

More recently Dr. Stepp, of Nuremberg, applied bromoform successfully in the treatment of whooping-cough, and still more recently Professor Senator, through his assistant, Dr. Loewenthal, of Berlin, published an article in the *Berliner klinische Wochenschrift*, heartily endorsing Dr. Stepp's treatment and recommending its further use, promising to again publish his results. He noticed in some cases a decided benefit as early as the second day of treatment, in others on the third or fourth day, depending on the severity of the case. Vomiting disappeared in the first week of the bromoform treatment. Bronchitis, complicating tussis convulsiva, seemed to be benefited also during the course of the treatment. In from two to four weeks children were usually discharged cured. Appetite also was better during the course of treatment. Children with previous morbilli, also delicate ones, experienced equally beneficial results. Some cases had the treatment interrupted by a complication setting in, *e. g.*, morbilli, pneumonia or varicella. Relapses occurred where bromoform was not administered long enough; in some cases sleepiness was observed during the course of treatment. In a case where a toxic dose of $CHBr_3$ was given, the following symptoms were noted: Contracted, pin-point pupils; small, compressible pulse; pale countenance; cornea not reacting; on auscultation long, deep inspiration; hardly any expiration was noticed; the heart-sounds were scarcely perceptible. The child reacted immediately on giving a hypodermic injection of sulphuric ether.

He describes sixteen cases to show the effect of bromoform in his practice, and adds that the cases illustrate the different conditions of children attended; patients of all kinds were taken at random, although most cases were seen in the Children's Department of the German Poliklinik; several cases were also seen in the New York Polyclinic. Most patients that were treated lived in tenements, in badly ventilated apartments, and were, as a rule, poorly nourished subjects, as are usually most dispensary patients. Several cases with the best hygienic surroundings possible, with excellent nursing, the best of food and strict sanitary regulations, were also attended, and Dr. Fischer could notice no more benefit than he did in the ordinary class living in tenements. He does not pretend to say, however, that, given the best hygienic surroundings, the best of care, proper dieting, etc., such cases might not, in the long run, be much easier treated, although in fifty-one cases he noticed no shortening of the disease where better food and air were added. In all his cases he made it a rule to urge the mothers or the nurses to count the number of attacks of coughing in a given time, say six, or usually twelve hours, as only by knowing exactly how many times a child coughed could the treatment be regulated. He also had the number of severe and the number of mild attacks counted. In giving bromoform after eating, he refers, in cases of infants, to giving it after nursing; but it made no particular difference whether it was given shortly

after feeding or an hour after feeding. In several cases he gave bromoform before meals, and noticed no bad effects from the same, although giving it after feeding was preferable. Baginsky, after going into detail about the etiology of tussis convulsiva, sums up by saying that it is an infectious catarrh, caused probably by a micro-organism, which has not as yet been found. There is no question, however, as to the infectious nature of whooping-cough, and children all through the treatment should be isolated from healthy ones as thoroughly as possible. Dr. Fischer has in all used bromoform in fifty-one cases, and still has several under observation; and thinks there is no question but that it is the best known remedy when properly applied. Owing to its discoloration and extreme volatility, he has administered it from dark bottles, or bottles protected from the light and very well stoppered. If the bromoform turns brown, then it contains free bromine and should not be administered.

The doses required were the following: For children under and up to one year of age, two to three drops three times a day; children from two to four years of age, three to four drops three or four times a day, depending on the severity of the case; children until eight years of age, four to six drops three or four times a day. The doses were usually increased on the third day, sometimes after the fourth day of treatment, and in very severe cases on the second day of treatment, by gradually adding one drop to the usual dose. The time required for a cure was variable; in some cases ten days of treatment was enough to effect a cure, others required almost four weeks. About seventy-five per cent. could be discharged cured between two and three weeks after steady treatment, where no other complications existed.

Bromoform should be given in a small teaspoonful of water. Owing to its weight it sinks to the bottom of the spoon, and great care must therefore be taken to see that the child swallows the bromoform, and that this does not remain in the spoon. Dr. Fischer did not experience any difficulty in giving it to children, as bromoform has a pleasant taste and was very readily taken by such patients.

Death from Paraldehyde.

The *Lancet*, August 23, 1890, reported that on August 10, a patient in the Fever Hospital attached to the Cork Workhouse died from the effects of paraldehyde. The deceased, twenty years old, was suffering from typhoid fever, and but slight hopes were entertained of her recovery. As she was suffering from violent delirium and sleeplessness, a hypnotic was prescribed, and the temporary nurse overlooked the directions she had received, and, instead of giving one teaspoonful, administered from six to seven teaspoonfuls. In about five minutes the patient fell into an unconscious state, and, despite medical assistance, remained in that state for four hours, when she died. The quantity of paraldehyde that was administered is not mentioned, but it may be supposed the deceased girl took from six to seven drachms.

Effect of Exercise.

Dr. Thomas M. Bull, in the *New York Medical Journal*, August 9, 1890, says: The high grade of general health which a proper amount of exercise tends to develop is the best possible safeguard against the encroachment of morbific germs. This is shown well in the case of ordinary colds. I have repeatedly seen people who, before taking exercise regularly, were afflicted with colds nearly all the time, but afterwards had a great many fewer or none at all. And right here I should like to mention a little plan to avoid taking cold when exposed to a draught. Many of us are frequently exposed to draughts when we are in company and cannot avoid them. If a person in this position would rapidly and strongly contract the large body muscles, or opposite plates of those attached to the limbs, by means of which a great deal of force may be exerted and but little motion caused, he will have no fear of a draught producing a chill. By contracting in this way the muscles which cause adduction of the arms while the arms are at the side, I can in a short time produce a very comfortable state of perspiration, and certainly ward off any bad effects of a draught.

In regard to the effect of exercise on diseases of the heart, I have seen cases which were diagnosticated by several physicians as mitral regurgitant gradually grow less prominent and disappear. I have often seen cases where the heart sound was roughened, accentuated, or indistinct, improve rapidly and acquire a perfect sound when the only change was in taking regular exercise. In

the case of hearts, when the only trouble was excessive rapidity, intermittency, or irregularity, I have seen improvement follow very rapidly. And I believe that one of the best prophylactics against the development or extension of almost any hereditary or organic disease is muscular exercise properly taken. And, in conclusion, I should like to say that, in my opinion, the value of exercise is not exceeded by that of any single therapeutic measure. I am certain that all of us have seen patients for whom it would do more than any other thing consistent with their lives and occupations.

And if we were able to intelligently prescribe, and so get all the good possible out of exercise, I am confident we should be able to do many patients more good than in any other way.

Purgative Treatment of Peritonitis.

In a paper on the "New Treatment of Peritonitis," in the *Kansas City Medical Index*, July, 1890, Dr. Emory Lanphear strongly advocates the abandonment of the old method of rest and opium and the adoption of purgation with saline cathartics or operation. He specially cites the practice of Dr. John H. Musser, of Philadelphia, who gives a summary of twenty-six cases treated with small doses of calomel, olive-oil enemata, etc., without opium (except one or two small doses of morphine and atropine when pain was excessive); nineteen recovered without surgical interference, four convalesced after laparotomy, and three died. His method consisted in local blood letting until pain is much relieved; if more than forty-eight hours have elapsed, a blister; liquid diet absolutely; stimulants administered freely to prevent collapse; cracked ice, lime-water and iced champagne for thirst, if desired, but sips of hot water or hot whiskey are better; calomel in small doses hourly until the bowels are moved freely; veratrum or aconite for fever; whiskey, digitalis, atropine and amyl nitrite if collapse be imminent. While Dr. Musser's cases did not receive salines, the plan of treatment was the same—that of purgation instead of opium—and the results were startingly favorable, for of these cases fifteen were desperately ill at the first visit of the doctor.

Many more cases, especially following laparotomy, might be given with like favorable results, but these suffice to show that prominent men are changing from the opium to the purgative treatment of this disease, and with a greatly decreased mortality. Recalling, then, the experience of my preceptor, remembering my own cases and adding thereto the accumulating weight of evidence, my conclusions are that the saline treatment should be adopted early in simple, acute peritonitis; that small doses of calomel may be given to mild purgation in cases seen after the disease is fully developed; that cases which fail to be relieved by cathartic measures should receive early operative interference; that whenever peritonitis has gone on to that stage where the formation of pus is known, or even suspected, to have taken place, abdominal section and drainage are imperatively indicated; that when the existence of tubercular peritonitis is diagnosticated, or strongly suspected, operation (exploratory incision) is justifiable.

Opium is only indicated in the second stage of peritonitis, and then not because it "forms a splint" but because it relieves pain, sustains the heart and prevents shock—thus combatting the tendency to death.

Atropine and Potassium Cyanide.

The *Western Druggist*, August, 1890, says a young man at Halle, Germany, recently attempted suicide by swallowing a fatal dose of potassium cyanide in solution, and to make assurance doubly sure, followed it up by a solution of atropine. This, however, was too much of a good thing; the two deadly poisons had it out between themselves, and the rash court scribe, after a few fainting spells and a sense of weakness, was discharged from the city hospital on the following day none the worse for his physiological experiment. He received no medical treatment.

Pasteur Statistics.

The Pasteur Institute in Paris reports (*Bulletin Médical*, August 17) that 172 persons were treated during June, 1890. In 57 cases the rabid conditions of the biter was tested experimentally (according to Pasteur's theory); in 80 cases it was asserted by veterinary surgeons; in 35 the animals were only "suspected" of rabies. The animals that did the biting were: dogs, 154 times; cats, 7 times; horses, 7 times; asses, 3 times. In one case the bite was by a child affected with rabies.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MIXED ANÆSTHESIA.

Since Nussbaum, in 1877, proposed the hypodermic injection of morphine previous to the induction of anæsthesia by chloroform, there have been a few who resorted to this procedure. More recently Dastre, a French surgeon, has recommended a combination of morphine and atropine for the same purpose. In *Le Mercredi Médical*, July 30, 1890, Reynier reports a very unfortunate experience with this use of morphine and atropine previous to chloroform anæsthesia. Dastre maintained that the syncope produced by chloroform is due to the inhibiting action of the pneumogastric and of its centres in the medulla, and therefore proposed to paralyze this apparatus with morphine and atropine. Aubert obtained satisfactory results in experiments upon men, and it was owing to these that Reynier tried the method. The patient was a young girl, sixteen years old, pale and chlorotic, who underwent a short operation for tuberculous osteitis. It was over in ten minutes. She had inhaled about seven drachms of chloroform and had received previous to anæsthesia one-twelfth of a grain of morphine and one two hundred and fiftieth of a grain of atropine. The operation over, sleep was prolonged. Reynier says he was not uneasy, for Dastre said that this was the rule and was one of the advantages of the method. Reynier therefore left the ward, but in about two minutes his interne summoned him in haste. The respiration of the patient had abruptly become more rapid, then soon afterwards very feeble, and when Reynier arrived it had almost ceased, and so had the heart beats. For three hours artificial respiration and hypodermic injections of caffeine were used; at times it was hoped that some spontaneous respirations were obtained. But there was no help for it; the patient was dead. The autopsy, conducted by Verneuil, disclosed nothing abnormal. The chloroform was analyzed and was found pure.

Reynier expresses the opinion that there was a progressive intoxication of the centres in the medulla by the chloroform, and that the morphine and atropine deprived the chloroform of one of its advantages, namely, its rapid elimination. He has endeavored to prove this opinion experimentally in the laboratory. He thinks that dogs bear atropine and morphine very well, but chloroform badly; whereas just the reverse is true in man, who bears chloroform well, but morphine and atropine badly.

It should never be forgotten that even the safest anæsthetic is dangerous. But experience in the administration of an anæsthetic goes far to lessen its dangers. Perhaps the surgeon will have the fewest accidents who confines himself to one anæsthetic and so studies the administration of that one that he becomes master of it. Chloroform is undoubtedly more widely used than any

other anæsthetic agent. The path by which death takes place after its use is still in dispute, and until that is determined beyond question it will be hard to decide what part of mixed anæsthesia—if any—is directly responsible for a death following it. Deaths attributed to chloroform alone are too common and mixed anæsthesia has been used with entire success too often for the case described above to be regarded as proving that it is more dangerous than useful in surgical practice.

BITE OF ANIMALS APPARENTLY NOT RABID.

Drs. Roux and Nocard, assistants of Pasteur, have recently been endeavoring to answer conclusively the question whether or not a person bitten by a dog which, at the time of the biting, shows no symptoms of rabies, but which developed plain manifestations of the disease three or four days later, runs any risk of becoming rabid.

They conducted a series of experiments the result of which are reported in the *Annales de l' Institute Pasteur* No. 3, 1890, and are quoted in the *Wiener Medizinische Presse*, July 13, 1890. An "emulsion" of the spinal cords of rabid dogs was injected into the anterior chamber of the eyes of healthy dogs, and as soon as the latter showed the first symptoms of rabies—an elevation of temperature—their saliva was injected into rabbits and guinea-pigs. The saliva of the rabbits and guinea-pigs was found to be virulent three days before any symptoms of rabies had become manifest. The question now arose whether or not the seat of injection (the anterior chamber of the eye) favored the rapid infection with the saliva. Subcutaneous inoculations were then tried, and it became evident that the saliva was virulent thirty hours before the appearance of the first symptoms of rabies. Finally, in subdural inoculations the saliva remained inert for seven days and became virulent synchronously with the appearance of rabies in the animal. The amount of virus in the saliva increases with the advance of the disease. Roux and Nocard claim, therefore, that the result of their experiments show that a dog may be considered dangerous three days before any symptoms of rabies have manifested themselves.

This is a perfectly typical example of the mode of reasoning of the Pasteur Laboratory, so far as the account we have seen goes. There is no evidence whatever that any of these animals experimented on had rabies, or that any of them ever had any of the symptoms of what the Pasteur disciples *call* rabies, except an elevation of temperature; or that any control experiments were made to show what effect would be produced by inoculating saliva from animals which had not been sickened by the method used in Pasteur's Laboratory to produce the artificial disease which there is called rabies.

It is a simple announcement in true Pasteur style, unaccompanied by proof of its reliability and calculated to increase a foolish fear which has proved already very dangerous to the world and a source of great profit to Pasteur. It is calculated to arouse the anger of those who labor to heal diseases, when they see these experimenters launching one dogmatic assertion after another, to multiply cases of a disease which was less frequent and less fatal before ever they meddled with it.

THE IMMEDIATE REPAIR OF LACERATIONS OF THE PELVIC FLOOR.

Although this subject has been before the profession a long time, we believe that very erroneous views prevail only not concerning the repair of injuries of the pelvic floor, but more especially concerning the nature and frequency of such injuries. It is still not unusual to hear the gravity of such injuries measured by the number of fractions of an inch of skin involved in the lesion, and to hear it gravely proposed to repair the same by introducing one suture. Until the real nature of injuries of the pelvic floor is in-

vestigated by the practitioner, and the extent to which the muscles of the perineum, and more especially the levator ani, are involved in each injury, so long will inefficient means be recommended in the treatment of these lacerations.

In the *Medical Record*, of August 30, 1890, Dr. Irwin H. Hance contributes a well-written article on this subject. He divides lacerations of the pelvic floor into three classes: 1, Median; 2, those involving the skin over the perineum and extending up one or both sides of the median line of the vagina; and 3, lacerations of the posterior vaginal wall without rupture of the skin—tears usually V-shaped, one arm of the V being longer than the other. Had Dr. Hance added, as a fourth-class, laceration and over-stretching of the levator ani muscle, without superficial laceration of either mucous membrane or skin, his classification would be complete. The emphasis given the fact that simple median lacerations form an inconsiderable portion of the injuries of the pelvic floor, is specially to be commended, since this fundamental fact has a positive bearing on treatment.

In repairing these lacerations Dr. Hance insists upon the fact that the parts are to be sutured in their normal relations. To accomplish this, suturing is begun at the upper extremity of the tear—as in the secondary operation. He uses catgut, and insists on rigid antisepsis. This method of operating is unquestionably the only one which brings the severed tissues together in proper relation—with the exception perhaps of simple median tears which extend only a fraction of an inch up the vagina; and in these cases suturing is of little importance. Imagine the closing of a laceration extending one or two inches up the vagina, perhaps on both sides of the median raphé, and involving the levator ani, by sutures introduced from the skin surface of the perineum! One of two results must follow. Either the suture acts as a drawing-string and distorts the relation of the parts, or else it fails to embrace the upper extension of the tear and leaves a pocket for the collection of lochial discharge. The choice of suture material is largely indifferent, as good results can be obtained with any reliable antiseptic solution, provided only that it is properly introduced.

It is high time that the immediate operation for the repair of lacerations of the perineum be properly conducted, and the practitioner cease to waste his time in drawing together a useless fold of skin before the injury of real importance—the lacerated levator ani muscle.

HERMAPHRODITISM, OR SEXUAL PERVERSION.

In the early part of September the newspapers contained an account of a case which was calculated to stimulate curiosity, and to excite interest in the mind of the general public. It was that of an hermaphrodite, or else of a sexual pervert. As the *Philadelphia Record*, September 3, tells the story, "Delbert Reynolds was born a boy twenty-two years ago at San Rafael. A short time ago he married a respectable blacksmith at Alena, and blossomed forth as Belle Hardman, a loving wife. Her husband is willing to make affidavit that she is a true woman, and the mother, Mrs. Reynolds, is prepared to swear that it was born a boy, and remained so for twenty years, doing boy's and man's work and associating with males as a rule. The transformation covered a period of eighteen months, and a San Francisco doctor, while amazed, vouches for the marvelous change of sex as an absolute fact. The only solution of the problem will be for he, she or it to become a mother. In the meantime the doctors, the neighbors and all the country round are asking, 'What is it?'"

We have investigated this case through a correspondent in San Francisco, and have learned from the family physician at San Rafael, Dr. Henry A. Du Bois, that he had never had his attention called to any mal-

formation in the young man, and had never examined his genitalia. Until lately the person had been considered a boy, and is said to have hair on his face. He is said to have married a young man, and to be living with him as his wife. Dr. Du Bois thinks he is a male, and that the present association is due to unsoundness of mind, or that it has been made in order to attract attention. It is said that the subject of this notice has refused to submit to a physical examination, and that his mother and friends regard him as a male.

It is to be hoped that more precise information will be obtained in regard to this case; because it will be interesting to know whether it is really one in which it is possible for a mistake to be made as to the sex of the individual, or one in which sexual perversion or a desire for notoriety has led to the union of two males.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

THE PULSE. By W. H. Broadbent, M. D., Senior Physician to, and Lecturer on Clinical Medicine in the Medical School of St. Mary's Hospital, London. Illustrated with fifty-nine Sphygmographic tracings. Small 8vo, pp. vi, 312. Philadelphia: Lea Brothers & Co. Price, $1.75.

The author modestly states in the preface that this little book is for the most part a reproduction of the Croonian Lectures on the Pulse, delivered before the Royal College of Physicians in 1877. There are, however, some amplifications and additions, in particular of a chapter on the sounds of the heart.

After an interesting historical sketch of the pulse, the author takes up the consideration of the pulse, its production and significance. He declares that it is not an expansion of the artery with each so-called "wave" of blood, but that it indicates simply the degree and duration of increased pressure in the arterial system caused by the ventricular systole. The term "tension" means simply the degree of fluid pressure within the artery, putting its walls on the stretch. Arterial tension and blood pressure, therefore, mean exactly the same thing.

The three factors in the pulse are: the action of the heart, the elasticity of the great vessels, and the resistance of the arterioles and capillaries. The heart determines unconditionally the frequency and regularity or irregularity of the pulse, and, with certain qualifications, its force or strength. The great vessels act as an elastic reservoir and convert the intermittent jet issuing from the ventricle into a more or less continuous stream, impressing at the same time certain characters upon the pulse according as the elasticity of their walls is perfect or impaired, and according as they are kept fully distended or only slightly on the stretch. The capillaries and arterioles, in their turn, by the varying resistance which they offer to the passage of blood through them, determine the mean pressure maintained in the arterial system and the character of the pulse, and influence materially the action of the heart.

After a chapter on the mode of feeling the pulse, the author takes up in successive chapters the heart-sounds in relation to the pulse: increased frequency, diminished frequency, intermittency and irregularity; the pulse as influenced by variations in artero-capillary resistance; low arterial tension; high arterial tension; the pulse in acute disease, in valvular disease of the heart, in structural disease of the heart, in aneurism, and in kidney disease. The concluding chapters are on Intermittent Albuminuria, and the Pulse in Affections of the Nervous System.

This brief statement of the scope of the book will give a good general idea of its contents. In speaking of the pulse of aneurism, Dr. Broadbent adopts the general view that a difference between the two radial pulses and a wave-like sphygmogram is significant of aneurism. Von Ziemssen has shown that this difference is the result of a narrowing of the orifices of the vessels coming from the arch, produced by atheromatous change, and that, while such narrowing may be found co-existing with aneurism, it is more frequently found apart from it in general arteritis deformans.

One who has not himself given close study to the pulse will be surprised, on reading Dr. Broadbent's book, to learn how much the pulse may indicate, and how important its indications are in the detection of disease. Perhaps no more hopeful sign of the progress of medicine could be given than this monograph; it shows how broad is the field of medicine, and at the same time how much is to be found in a small corner. We cordially commend the book to our readers.

LEÇONS CLINIQUES SUR LES MALADIES DE L'APPAREIL LOCOMOTEUR.

CLINICAL LECTURES UPON DISEASES OF THE LOCOMOTOR APPARATUS (BONES, ARTICULATIONS, MUSCLES). By Dr. Kirmisson, Professor Agrégé of the Faculty of Medicine, etc. With 40 illustrations. 8vo, pp. viii, 550. Paris: G. Masson, 1890.

The author succeeded Professor Richet, in 1888–89, in the chair of Clinical Surgery at the Hôtel Dieu, where the lectures from which the present volume is made up were delivered. As indicated in the title, only the lectures on diseases of the bones, articulations and joints have been utilized in this way. The subjects treated include osteitis, osteomyelitis, hereditary syphilis of the bones, chronic inflammation of the joints (shoulder, hip, knee), syphilitic arthritis, Pott's disease, hydatid cysts of muscles, club-foot in its several forms, etc. The book gives an admirable presentation of the diseases named from a modern French point of view, and is a valuable addition to current surgical literature.

Burials without Death Certificates.—It was lately stated in the British Parliament that fifteen thousand persons are buried annually without any medical certificate of death. The government has promised to inquire into the matter.

New Remedies and Appliances.

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Wyeth's Beef Juice.

It is seldom that a dietetic preparation so thoroughly agreeable as Wyeth's Beef Juice is put upon the market. It is decidedly the most palatable beef extract which we have ever examined. For its preparation nothing is required except the addition of a teaspoonful of the beef juice to about half a glass of cold water; and this makes it very convenient for administration. As compared with such preparations as Valentine's beef, it is very superior in nutritious quality, and we think that no one who has used that will regret it if he puts Wyeth's Beef Juice in its place.

Correspondence.

Fences against Malaria.

To the Editor.

Sir: Under the quaint title of "Fences for Malaria," there is a paragraph in the Reporter of September 20, 1890, in which the use of leafy hedges for intercepting malaria is referred to as an old and popular notion. To the fact that this notion is well-founded there is much testimony that is both interesting and curious. The readers of that charming series of lectures known as *Watson's Practice of Physic* find much in his discourse on intermittent fever to establish the prophylactic influence of trees, when situated about a dwelling, and between it and places known to be malarious. Physicians of the present day, who fail to acquaint themselves with this most attractive volume, miss a rich intellectual feast, and a great amount of useful facts and details not elsewhere presented in the same perspicuous and happy style. Here are gathered the records by many learned and careful observers in various places, of the influence of surroundings, direction of winds, elevation of site, and obstacles interposing in preventing the access of malaria. To this mass of testimony I add my own mite of experience.

In the autumn of 1848, after the subsidence, for the year, of the fevers infesting the region, I took up my residence in a narrow valley, having a stream flowing through it, but subject to interference in its course by ledges of rock, mill-dams and other obstructions. I did not observe any malarial manifestations until August of the following year, when many cases suddenly presented themselves. As an unacclimated person, I would of course be especially prone to an attack, and this was confidently predicted by those who were "to the manner born." Knowing my peril, I adopted the maxims inculcated by the eminent author mentioned; I avoided the night air as much as possible, and when obliged to be out wore a silken handkerchief as an oro-nasal respirator, in the manner pointed out by him. I escaped the disorder, but had ample opportunity to study its phenomena as exhibited in others —several members of a family in given cases being simultaneously prostrated by it. The autumn of 1849 I dwelt adjacent to the same stream, but nearer its source. At this point, by reason of insufficient drainage-fall, and because of obstructions by rocky ledges and fallen trees, its waters spread over an area of several square miles. The submerged territory was lessened by droughts and increased by heavy rains, the rise and fall being intermittent during the autumn. I do not remember using the precautions resorted to the autumn previous, and became a victim to the prevalent baneful influence. I attributed my former immunity to the careful observance of prophylactic measures, and especially to the use of the veil. Though nearer the fen than at my former residence, the fever was not more rife than in that neighborhood. Whether I should have escaped had I used the precautions of the former year I know not: but I am still of the opinion, that there is much in "Fences against Malaria" which is entitled to our regard and observance.

Yours truly,
Enos T. Blackwell, M. D.,
Cedarville, N. J.

Knotted Umbilical Cord.

To the Editor.

Sir: The relative scantiness of literature upon the subject of knots in the umbilical cord leads me to report the following cases:

Case 1. Mrs. G., twenty-eight years old,

had had one delivery at term and one abortion previously. Nothing unusual about her labor, except the precipitate termination of both second and third stages. In the cord there two single knots several inches apart. On account of adhesions the knots could not be untied.

Case 2. Mrs. D., thirty-three years old, had had two deliveries at term and one abortion at the fifth month previously. Examination, on August 29, showed that the head was low, in L. O. A. position. The cervical canal freely admitted the finger. The funic souffle was heard, the pulse-rate being 150. Delivery occurred without accident on September 2. The cord passed once around the neck of the child. The total length of the cord was twenty-six inches. At distances of eight and twelve inches respectively from the placental end there were single knots without adhesions; so that they could be untied without difficulty. As the child was born in the same position that it occupied four days before labor, the knots must, in all probability, have antedated the examination. Neither the knots nor the loop of cord around the neck caused any demonstrable interference with the circulation.

Case 3. Mrs. D., thirty-seven years old, had had seven deliveries at term and a miscarriage at the fourth month previously. Menstruation had not occurred for ten calendar months. Examination, on September 10, showed that the child was in L. O. P. position, with a pulse of 140. Labor occurred on September 13, the occiput rotating anteriorly. The vernix caseosa was unusually abundant; the placenta was very friable; the cord had a greenish color and a shrivelled appearance. Exact measurements could not be made, but the cord was short and, being about the child's neck, it had to be cut before delivery could be effected. At two points in the cord, the vessels made loops about one-fourth inch in circumference, supported by a thin process of Wharton's jelly. Although at first sight these off-shoots did not appear to be knots, further examination made it probable that they were the remains of knots formed quite early in gestation, the jelly having accommodated its shape to the general direction of the cord. There is a suspicion of syphilis in this case.

Yours truly,

A. L. Benedict.
86 W. Huron St., Buffalo, N. Y.

Notes and Comments.

Micro-organisms and Amœboid Cells.

In a paper in the *British Medical Journal*, August 30, 1890, Dr. M. Armand Ruffer says:

It is easy to show that the epithelioid cells of infectious granulomata have functions similar to those of the same cells in lymphoid organs. In tubercle, for instance, such cells not only take into their interior the specific bacilli and digest them, as Metschnikoff had noticed, but, according to my observations, such cells absorb and digest the smaller lymphocytes which enter into the formation of the tubercle nodule. In glanders, also, I have seen the same process taking place in the epithelioid cells entering into the formation of the chancre in the Schneiderian membrane of the horse. But there is one disease in which the destructive action of these cells can best be studied, namely, in actino-mycosis. Professor Crookshank, in his researches of this disease in men and animals, described large mono-nucleated cells, which he rightly, in my opinion, compared and regarded as identical with the epithelioid cells of the tubercle. If, instead of examining the centre of each microscopic nodule, which consists of the central mass of hyphen-like bodies lying in a nest of epithelioid cells surrounded by inflammatory material, the periphery of the nodule be examined, a number of epithelioid cells are found, often containing in their interior one, two, three or more—sometimes as many as eight or ten—lymphocytes in various stages of degeneration. They, like the epithelioid cells of tubercle, of glanders, lymphatic glands, spleen, etc., are easily recognized by their large, clear, vesicular, generally single nucleus, and the large amount of vacuolated protoplasm surrounding it.

The power which such cells possess of taking into their interior and destroying pathogenic micro-organisms has already been dwelt on by Metschnikoff. As a rule, however, epithelioid cells are concerned chiefly in the destruction of other cells which have been weakened, or have died, as the result of their struggle with pathogenic parasites. Notice also, that these cells do not pre-exist at the point where the struggle takes place, but that time must elapse—several days in most cases—before such cells are formed.

Of the larger multi-nucleated cells (so-called giant-cells) which are found in certain chronic forms of inflammation, namely, tubercle and actino-mycosis, I have little to say that is new. According to Metschnikoff, such a cell is formed either by karyokinesis (the protoplasm of the cell not dividing) or by the fusion of several epithelioid cells. In any case I agree with Metschnikoff in thinking that, far from a giant-cell being a structure in any way weakened or diseased, it is on the contrary a most active body—in other words, a *fighting* cell. Every one who has successfully isolated one, and has seen its long slender processes often prolonged in the interstices between many groups of cells, cannot doubt that it is an amœboid structure. Its contents, again, show it to be a combatant, for in it are found numbers of tubercle bacilli, in various stages of destruction—a fact already described in masterly fashion by Metschnikoff, whose observations on that point I can only confirm.

I have lately, though quite accidentally, observed one fact which illustrates this destructive function of giant-cells. In the spleen of many animals, more especially of guinea-pigs, the uninucleated epithelioid cells often contain a quantity of pigment, which is really the remainder of red corpuscles destroyed in the interior of these cells. I have lately shown that the number of these cells is greatly increased in certain infective diseases, that is, quarter-evil. In the spleen of tuberculous guinea-pigs, in which the tubercle has invaded that organ, the destruction of red blood corpuscles in the macrophages of the spleen is an extremely active one, but—and this is the most interesting point—the giant-cells of tubercle take an active share in this process, and I show you here two giant cells absolutely crammed with blood-pigment and débris of partially-digested leucocytes—a further proof that giant cells are amœboid, and, like other amœboid structures, have the power of taking into their interior, and digesting, red blood corpuscles, leucocytes and micro-organisms.

Considering, therefore, that the tubercle-nodule consists of a number of extremely active amœboid cells, which all have the power of seizing, destroying and digesting tubercle bacilli, I am of the opinion that the nodule is really a barrier raised up against the invasion of the whole organism by the specific bacilli, and that the processes taking place in the nodule, as long as the anatomical elements composing it are alive, serve a useful purpose.

Lately I have published facts showing that processes going on at the point of inoculation of the virus of quarter-evil are really protective in their nature. I endeavored to show that in this disease, as soon as the virus was introduced subcutaneously, an emigration of leucocytes took place, which, surrounding the virus, prevented the specific bacilli from getting into the system. Moreover, the leucocytes, taking the bacilli into their interior, destroyed and digested them. The conclusions I drew from those experiments were that:

(1) The inflammatory process consecutive to the introduction of the bacilli of quarter-evil under the guinea-pig's skin is a protective process, and serves a useful purpose; and (2) the destruction of micro-organisms at the point of inoculation is carried out entirely by the amœboid cells present in the inflammatory exudation.

More lately still I have brought forward similar facts relating to diphtheria, but, as they have only just been published, I must restrict myself to repeating the conclusions at which I have arrived.

1. The bacilli of diphtheria are present in the most superficial part of the membrane only, that is, in a place where they are well within reach of medicinal agents, an observation not without interest from the point of view of treatment.

2. In the diphtheritic membranes there is an active struggle taking place between the amœboid cells in the membrane and the micro-organisms. In other words, the diphtheritic membrane is a battlefield for amœboid cells and the pathogenic microbes of diphtheria.

3. The reason why the bacilli do not actually penetrate into the tissues is probably that, as soon as they try to do so, they are arrested by the amœboid cells present in the diphtheritic membrane.

Salol for Tonsillitis.

Few diseases are more prevalent in our climate than acute angina. And while attacks of tonsillitis and pharyngitis are not to be classed with the graver affections, the amount of suffering and discomfort they entail often make them objects of serious concern to the practitioner. These inflammations are strictly self-limited, and gene-

rally subside without treatment in from three to seven days. Nevertheless, the means at our command to lessen the annoying dysphagia and other distressing symptoms are not as satisfactory as they might be, especially from the patient's point of view.

Salol has lately received some warm praises as a drug that can be relied upon to favorably influence the course of these affections. Gouguenheim and Capart have pointed out its utility, and in our country Dr. Jonathan Wright, of Brooklyn (*The American Journal of the Medical Sciences*, August, 1890), speaks highly of the remedy. As salol is one of our newer compounds, Dr. Wright's brief synopsis of its properties and action may serve as a reminder here.

It was discovered by Nencki, a Swiss chemist, in 1883, and first used by Sahli in 1886. It is a colorless substance, sold in the shops as a coarse, white crystalline powder. It has a marked aromatic odor, and a faint taste, which is rather agreeable than otherwise. Chemically it consists of salicylic acid in which one atom of hydrogen has been replaced by the phenol group, and contains synthetically forty per cent. of the latter and sixty per cent. of the former. It is a proprietary article, made abroad, and usually sells at four dollars a pound.

It is insoluble in water, but, like the fats, is soluble in alcohol and ether, and is decomposed by sodium bicarbonate. Hence it should not be given in combination with the latter. It forms emulsions easily. Though crystalline in structure, it cannot be reduced to a fine powder, on account of the tendency of its particles to cohere. It has a low melting-point (43° C.).

It is insoluble in the gastric juice, but is readily dissolved in the pancreatic and intestinal secretions, where it is separated into its primary constituents, both of which are readily absorbed and appear in the urine, giving it the olive-green color caused by carbolic acid. In thirty-grain doses it is a powerful antipyretic, but in smaller and frequently repeated doses (five grains every hour) it is not so efficient in this regard. Its odor is very distinctly appreciated in the secretions and in the expired air.

The unique characteristic of salol in being able to pass the gastric juice unchanged, while in the intestines it is decomposed into phenol and salicylic acid, both being antiseptics, has been taken advantage of in treating the summer diarrhœas of children. The rapidity with which these drugs are absorbed, and the promptness with which they appear in the urine, have made it valuable in treating cystitis, pyelitis and gonorrhœa.

It has been used as an antipyretic successfully. But its principal use has been as a substitute for the compounds of salicylic acid in the treatment of rheumatism.

It has proved of service in sciatica and lumbago. The observations on its effects in allaying the pain in rheumatism are interesting in a consideration of its action on the dysphagia of acute throat affections, the time in which it is said to relieve the pain—twenty-four to forty-eight hours—corresponding very closely to the author's experience. Its occasional entire failure is also noted in both cases. The carboluria, which is always present, is the only sign of any phenol poisoning that is noticed, and need consequently give rise to no apprehensions.

In its administration he has never given less than sixty grains daily, nor more than one hundred and twenty, the most frequent dose having been ninety grains for adults. It may be given in powder form or as an emulsion. The most efficient method is to give it in ten-grain doses every two hours during the day.

He has noticed the most marked effect in lacunar tonsillitis, less in catarrhal pharyngitis and least in a well-developed quinsy. For the latter, hot fomentations and free incision are the best remedies, though salol may be given as an adjuvant. This, of course, only applies to cases after the fourth day, before that time the greatest relief being often obtainable by the use of the drug.

Dr. Wright concludes by transcribing Gouguenheim's summary, which he endorses in every particular:

1. Salol acts beneficially in acute anginas of whatever cause.
2. It quiets the pain and dysphagia with the greatest rapidity.
3. In quieting the pain it may shorten the duration of quinsy.
4. It lowers the temperature.
5. In nearly all cases it diminishes the duration of angina.
6. In order to attain these results, the dose should not be less that sixty grains daily.—*Medical Record*, Sept. 6, 1890.

Nature and Treatment of Impetigo.

Dr. Brocq writes from Paris to the *Journal of Cutaneous and Genito-Urinary Dis-*

eases, September, 1890, that Dr. W. Dubreuilh has just published in the *Annales de Dermatologie* an article on impetigo. He has already made known to your readers the views of the French school upon these points. We no longer adopt in Paris the opinion of Professor Hardy that impetigo should enter into the category of eczema. For us impetigo is an affection *sui generis*, definitely characterized by its vesico-pustular aspect, by its evolution, by its auto-inoculability and its non-inoculability to a healthy individual. It sometimes complicates eczema, but it may exist alone and follow its complete evolution as an impetigo without being complicated by an eczematous eruption.

These ideas, long held in honor at the Hôpital St. Louis, have been newly sustained by Dr. Dubreuilh. He believes that the intra-epidermic inoculations of any kind of pus may give rise to impetigo. Still one cannot find in the suppurative focus the origin of this dermatosis; but then its genesis is explained by the fact that we frequently find the *staphylococci pyogenes* upon the surface of the healthy skin, and in the dust which surrounds us. The question of the terrain still remains the most important, since the same causes may act upon many individuals without determining in all eruptions of impetigo. In fine, impetigo appears to the author to be an entity, perfectly determinate from a clinical point of view by its superficial pustule containing a quantity of viscous pus, which dries in thick and honey-like crusts, as well as by its contagiousness, while there is no etiological specificity, it being due simply to an inoculation under certain conditions of pyogenic microbes of whatever origin. He says that we cannot distinguish a contagious impetigo as a special form; there is but one impetigo —the impetigo vulgaris—which is contagious.

In Dr. Dubreuilh's opinion, ecthyma is only an irritated impetigo, inflamed by the sanguineous stasis, by the friction of the clothing, by traumatisms of every sort, and favored by dirt and often by a cachectic state.

The following is the method which he recommends for the treatment of this affection. The capital point is to detach the crusts and prevent their reformation. The first indication may be filled by poultices or by ointments; the second, by applying them frequently and in great abundance, so that the surface of the skin may not be allowed to become dry. Thus he advises that the diseased surface should be smeared twice daily with a layer of the topic sufficiently thick and covered with linen smeared with the same ointment, and retained in position by a suitable bandage. As an ointment he recommends vaseline and lard, each 50 parts; oxide of zinc, 20 parts; salicylic acid, 2 parts; acetate of lead, crystallized, 1 part. Each time the application is renewed it is well to cleanse the diseased surface by gently wiping it rather than by washing, and to lift up the crusts which may have accumulated.

A Medico-Legal View of Painless Labor.

Dr. Brunon recently reported to the *Société de Médecine* of Rouen the case of a primipara whose labor was so nearly painless that she herself mistook it for difficult defecation and would have been delivered in the water-closet if she had not been removed from it. According to the abstract published in *La Normandie médicale*, she felt only lumbar pains and a sense of weight in the rectum, and was not aware of the flow of liquor amnii. The author infers from this case that the discovery of a new-born infant in a water-closet pan does not necessarily raise the presumption of premeditated infanticide.—*New York Medical Journal*, Sept. 6, 1890.

Leprosy in Spain.

Some interesting particulars are given by the British Consul at Cadiz, in his last report, as to the San Lazaro leper hospital, which has been in existence at Seville for over 600 years. The first leper house in Spain was founded at Valencia, in 1067. The San Lazaro Hospital was founded by Ferdinand the Third, when he took Seville from the Moors in 1248. It is situated about a mile to the north of the city. A decree was issued in 1478, confirming previous enactments to the same effect: "That all persons without distinction residing within the Archbishopric of Seville and the Bishopric of Cadiz, denounced and declared lepers, must go to the Hospital de San Lazaro, Seville." This decree was carried out with great rigor. From the reign of Alfonso X, down to the last century, it was the custom for four patients to visit Seville daily on horseback begging,

and as they were not allowed to speak to ordinary persons, they attracted attention by means of boards. In 1854 the hospital was put under the charge of the Diputacion Provincial; the edifice was then little better than a ruin, and contained only 29 patients. In 1864 the building was repaired. The patients, who number on the average from 30 to 36, are looked after by Sisters of Charity. From the official reports it appears that the patients are not all lepers, cases of cancer, "inveterate" syphilis and other diseases being admitted.—*British Medical Journal*, August 30, 1890.

Boroglycerin Cream.

The following preparation is said to be excellent for chapped hands, lips, etc.:

Dissolve one part of boric acid in twenty-four parts of glycerin; add to this solution five parts of lanolin free from water, and seventy parts of vaseline. The preparation may be colored and perfumed.

A Third Ureter Emptying into the Urethra.

The Atlanta *Medical and Surgical Journal*, September, 1890, quotes from the *Monatshefte für Praktische Dermatologie*, that on the 29th of March, 1890, Dr. Desiderius Velits presented to the Medical Society of Budapesth, from the gynecological clinic of Prof. Tauffer, a fourteen-year-old girl who had suffered since birth with dribbling of urine. There was present, on the upper third left side of the large urethra a small opening. A hollow urethral sound directed into this opening upwards and backwards, somewhat to the left, emptied, after a moment, drops of urine. The cystoscopic examination revealed that both ureter openings were normally present in the bladder, and this third canal did not open in the bladder but—as shown by moving the catheter—passed over the posterior wall of the bladder, somewhat on the left side—above and to the left. The bladder was opened through epicystomy, and the opening of this third ureter fastened in the bladder, above the sphincter vesicæ, as follows: By means of the inserted hollow sound, the anterior wall of the abnormal ureter was carried behind and above the left vesical ureter opening, and the canal opened with a slit upon the sound, so that the button of the sound was now visible in the bladder; and at the same time urine dropped in the bladder through the freshly made opening. Then a portion of this ureter, anterior to the opening, was cut out, and cut end was cauterized with the Paquelin cautery. The bladder and abdominal wounds were sutured. Healing occurred without reaction, and about a month after the operation there had been no dripping of urine.

NEWS.

—Dr. David D. Stewart has removed to 1310 Walnut street, Philadelphia.

—Dr. William Y. Howard has removed to 1103 West Broadway, Louisville, Ky.

—The medical schools in Philadelphia began their regular Winter Sessions on October 1, to large classes.

—On September 26, Governor Beaver, of Pennsylvania, appointed Dr. Ellwood N. Corson, of Norristown, a Trustee of the State Lunatic Hospital at that place.

—The incorporators of the Rush Hospital for Consumption, in Philadelphia, met on September 30 and adopted by-laws, and gave the enterprise into the hands of the Board of Trustees appointed by the charter. It is expected that active operations will soon be begun.

—The University of Michigan, in Ann Arbor, has opened its current Winter Session with the largest class in its history. This is to the surprise of the officials, as the required course in the medical department is four years instead of three. Everything points to over a hundred gain for this year.

—In New York, in the case of Dr. McGonegal, charged with causing the death of Annie Goodwin by a criminal operation, the jury, on October 3, returned a verdict of manslaughter in the first degree. Sentence was deferred for a week in order to give opportunity to prove character. The maximum penalty is twenty years in State prison.

—The Philadelphia *Ledger*, October 4, 1890, says Mrs. James Caley, probably the oldest woman in Connecticut, if not in New England, died at Easton, in that State, on Thursday, at the age of 110 years. Her age is said to be verified by the town records of Fairfield, where she was born. Although she had been in feeble health for several years she retained her faculties until death. She distinctly remembered events that occurred 105 years ago.

MEDICAL AND SURGICAL REPORTER

No. 1755. PHILADELPHIA, OCTOBER 18, 1890. Vol. LXIII.—No. 16.

COMMUNICATIONS.

MAJOR PELVIC TROUBLES TRACEABLE TO MINOR GYNECOLOGY.[1]

BY JOSEPH PRICE, M. D.,
PHILADELPHIA.

With the present popular cry of "conservatism," in reference to operation in cases where it is held that all treatment should be tried previous to real surgical interference, it is worth while asking whether this preliminary treatment should not itself be abandoned in the hands of those who plead most pathetically for it. Their cry is not a scientific plea, but in most instances a *personal bid* for indulgence while they try to accomplish something, without acknowledging on the one hand that there is little or nothing to encourage them in their work, so far as results are concerned; and on the other, that there are abundant proofs from the cases that have come out from under their hands, with one treatment or another, that manifold really major surgical affections arise merely from treatment recognized as orthodox from the standpoint of minor gynecology. So far as my own experience is concerned, I do not hesitate to put minor gynecology in a causal relation with a vast amount of the necessary major pelvic surgery coming under my attention.

First among these causes may be mentioned the Emmet cervical operation. Like many other surgical operations, this, when first explained by its distinguished originator, was done in season and out, by every one, without the least consideration of its contra-indications. Very many minor tears of the cervix, in which a cosmetic effect only is obtained by operation, are made distinctly worse by operative interference. In many cases the pain becomes insufferable, from the lighting up of a dormant or unrecognized pelvic trouble, and operation is required to undo the mischief of an unnecessary cervical closure. This fact has been recognized by Emmet himself, and he has counselled the careful selection of cases in order to escape these disastrous results. It should be set down that where there is preëxisting pelvic disease, even though slight, no cervical operation ought to be tried unless absolutely required by the condition of the patient. Another operation which has met with much approval in many directions, and which some measure of success seems to follow in some cases, is the forcible dilatation of the cervix. It is clear that where there is antecedent inflammation of the pelvic viscera, that is, of the genito-urinary system, such an operation as surgical dilatation of the cervix cannot be free from danger. In order to relieve dysmenorrhœa by this procedure, it must evidently be due to stenosis of the os or cervix. The question here arises, can it be told, in dysmenorrhœa, wherein its causes lie? Sometimes; but not infallibly. The fact is, that in many women where a stenosis would be diagnosticated, there is no difficulty whatever attending the menstrual flux. This being the case, it is evident that a diagnosis cannot be made by simple observation without a careful study of all the symptoms. Again, in many women the causes for this condition are complex. It will not do to lose sight of this, and conclude that because a flexion exists dilatation will remedy menstrual pain. It is to be remembered that if there is coexisting pelvic inflammation dilatation will increase it, and, under certain conditions, cause it if absent. Rapid dilatation of the cervix is a distinct traumatism, and along with it run all the dangers incident to septic absorption that attend any other violent procedure, and where traumatism incident to natural causes is confessed to be the cause

[1] Read before the Philadelphia County Medical Society, September 24, 1890.

of so much subsequent mischief, it ought not to be *expected that operative injury can be harmless.* This conclusion, reached inferentially, has been abundantly confirmed practically on the operative table by much of my later pelvic work. In a number of cases with a history of preceding dilatation, the after-operation has exhibited an inflammatory condition of affairs as complicated as any other in my experience. Some of the dilatations were done with preëxisting disease, which was made worse by this interference, while others were done simply to relieve the dysmenorrhœa, and resulted in the establishment of a complicated surgical disease in which operation was *necessary purely to save life.* All in all, I believe that, judged simply by its remoter effects, the operation of rapid dilatation is a dangerous one, *and results oftener in subsequent harm than in lasting good.* The surgical injury to the cervix is, in many of these cases, more pronounced than the tears of the cervix which it is the intention to remedy by Emmet's operation. In this case there is operation at each horn of the dilemma, and the results are often equally bad at both. Simple closure of the cervix in cases of pelvic disorder, almost certainly exacerbate the symptoms. The necessary inflammatory action set up in the suture tract is transferred along the lymphatic or venous channels to the seat of the earlier inflammation, this is lighted up anew, and goes on in its development until a pelvic peritonitis is kindled or rekindled, which at last entails a major operation. The minor gynecologist, as such, who has no regard for or appreciation of the relation of the commonly advocated general closure of perineal and cervical tears to major surgical complications, cannot but be a great factor in the causation of the same. In Pepper's *System of Medicine*, vol. iv, there is on record a case in which the operator hoped to cure a pelvic inflammation by the derivative effect of a perineal or cervical operation. Needless to say, pelvic operation was afterwards done. Such a cure is no less ridiculous than the so-called "faith" cure, and is certainly more actively harmful.

That the inconsiderate use of the uterine sound has been responsible for much inflammatory pelvic trouble, is scarcely to be disputed. This is not because the sound is of itself a dangerous instrument, but because it is put into the hands of every tyro, as an instrument of diagnosis. If used at all, it should be in the hands of those with whom its application, by reason of their skill, will be exceptional, not usual, and the rule should be, that in the hands of the non-expert it should be forbidden. The more expert and experienced the specialist, the more rarely will the instrument be required. My own rule is, that in cases in which it might at first seem indicated, a little patience and diligence will obviate the necessity of employing it. The indiscriminate use of the sound and electrode, is the most serious MECHANICAL objection to the employment of electricity. Every sitting for the electrical treatment is prefaced by the use of the sound, and followed necessarily by the introduction of an electrode of some form. This is by a class of men who, in the main, have had no *previous gynecological training or education* whatever. In such hands such methods can only be harmful, and we are now reaping the fruits of their work in a class of pelvic operations not surpassed in the complications presented. Along with the sound may be placed the curette in the same category. Dilatation, with curetting of the uterus, have placed to their credit a long *series of major operations.*

Another class of cases coming under this head are those in which there has been a long time during which intra-uterine applications have been made. All the caustics in the catalogue have at one time or another been in favor, as cure-alls, in intra-uterine therapeutics. Nitric acid, chromic acid, nitrate of silver and the rest. For a woman to have undergone a routine treatment with this list, and to have escaped pelvic inflammatory trouble, is little short of a miracle. A careful inquiry into many of the cases coming under my care directly and indirectly, reveals the history that all sorts of minor procedures were tried, only to fail and apparently hasten the necessity for operation. I shall refer to and illustrate these points by the citation of cases in the discussion.

SOLUBILITY OF COMPRESSED TABLETS.—Dieterich advises that to such chemicals as are not readily soluble in water some substance be added that will cause the tablets to disintegrate. For salol, quinine, bismuth, lithium, magnesium carbonate, etc., he suggests sugar. For antifebrin, phenacetin and sulphonal, add about ten to twenty-five per cent. of compound tragacanth powder; for salicylic acid ten per cent. of bicarbonate of sodium.

TINCTURE OF IODINE FOR VOMITING OF PREGNANCY.[1]

BY LLEWELLYN ELIOT, M. D.,
WASHINGTON, D. C.

The treatment of hyperemesis gravidarum is a subject well-nigh thread-bare, and any one having the hardihood to introduce the subject at a meeting such as is the present one is likely to receive little attention. Be that as it may, my success with an agent which is condemned by some writers on materia medica as unfit for internal administration is my excurse for bringing the subject to your attention.

With conception begin the various changes and ills consequent upon the pregnant state, which often serve, in a greater or less degree, to render the woman discontented and miserable. Among these annoyances is reckoned vomiting, amounting frequently to hyperemesis. Since the pregnant woman has been taught that nausea and vomiting are natural sympathetic accompaniments of her condition, many endure their sufferings and privations without consulting their medical adviser, often in the vain hope that the morrow will bring better things. It is in cases where the vomiting becomes excessive that the sufferer yields to persuasion and seeks medical aid. I shall not dwell on the causes, the symptoms, or the prognosis of this phenomenon, as it would occupy too much time and would be without the scope of my title. The purpose of vomiting and nausea will be seen from the following quotations: Playfair says (*System of Midwifery*, p. 146), "It is an old observation that when the sickness of pregnancy is entirely absent other, and generally more distressing, sympathetic derangements are often met with, such as a tendency to syncope." Dr. Radford (*Diseases of Women and Children*, p. 551) has laid especial stress on this point and maintains that under such circumstances women are peculiarly apt to miscarry. Bedford says (*Principles and Practice of Obstetrics*, p. 128), "I do not think there is any fact, as a general fact, better established than that pregnant females, who escape nausea and vomiting during gestation, are *exceedingly apt to miscarry*." He has even administered ipecacuanha to induce these disturbances, so as to be able to carry a patient, who had habitually miscarried, to term (*Ibid.*, foot-note, p. 129). Leishman says (*System of Midwifery*, p. 213), "Midwives have an aphorism that a sick pregnancy is a safe one." Ashwell says (*Practical Treatise of Parturition, etc.*, Ed. 1828, p. 167), "We know not how far vomiting may be beneficial in this state." Bard says (*Compendium of Midwifery*, Ed. 1807, p. 171), "Sickness and vomiting so generally occur during the first months as peculiarly to excite suspicion that they are somehow designed by nature to contribute to the woman's safety." I shall not multiply authorities.

Dismissing those similiar cases which require little attention or treatment, I shall preface the histories of my cases by a reference to the procedures generally practiced. Dewees (*Treatise on Diseases of Females*, p. 209), has "repeatedly found much benefit from the use of the spirit of turpentine three or four times a day in twenty-drop doses," "and where the stomach rejects everything almost as soon as swallowed, I have often known a tablespoonful of clove-tea act most promptly and successfully." He confirms the experience of Denman (*Introduction to Midwifery*, Vol. 1, p. 138, Ed. 1802) with opium, who writes as follows: "In cases of excessive vomiting, opiates are generally given with great advantages. But I have persuaded myself that their habitual or very frequent use is prejudicial to the fetus." Verrier (*Practical Manual of Obstetrics*, p. 151) recommends among other things, Gubler's eupeptic elixir in tablespoonful doses. This has been used successfully at the Hospital of Beaujon. The formula for each dose is disastase, 30 grams; pepsin, pancreatin, each 10 grams. Use any simple elixir to make the required volume. Where the vomiting has become uncontrollable and the woman in a miserable state, he recommends abortion as a means of saving the mother's life.

Copeman's method of dilatation of the os is a treatment very successfully practiced and is only accompanied with danger of abortion when the internal os has been passed. Applications of nitrate of silver have been recommended. Charpentier, writing upon the "Vomiting of Pregnancy" says (*Cyclopedia of Obstetrics and Gynecology*, Vol. 2, p. 42), "that tincture of iodide may be mentioned as an empirical remedy."

Winckel, in the literature of "Persistent

[1] Read at the meeting of the American Association of Obstetricians and Gynecologists, Philadelphia, September, 16, 1890.

Vomiting of Pregnant Women" (*Text-Book of Midwifery*, p. 253), has quoted as follows: "Tincture of Iodine—Eliot, *Medical Record*, New York, 1887, xxxii, 422, (fatal)." How this error in quotation could have occurred, I am at a loss to understand, as the history of the case reads very plainly as follows: "At this juncture she was given five drops of tincture of iodine in a tablespoonful of sweetened water; the effect was magical, for the vomiting ceased almost immediately. To make assurance doubly sure, she was given a second dose in thirty minutes. The labor now progressed rapidly, and at five o'clock, three hours after the first pains, she was delivered of a male child, well developed and healthy. The third stage normal. No bad effects followed the use of the iodine" (*Medical Record*, N. Y., Vol. xxxii, p. 422). To check this uncontrollable or persistent vomiting, abortion has been induced in many cases, but I have never thus far been obliged to resort to it as a means of relief.

M. François Cartier, in an article: "Action de la teinture d'iode contre la vomissement" (*L'Union Médicale*, Vol. xlviii, p. 69), has given with success ten drops in the vomiting of tuberculosis, alcoholic gastritis, pregnancy, fever, etc. Gottschalk (*St. Petersburger Medical Woch.*, in Jour. A. M. A., Vol. xiv, p. 686) recommends menthol, and has used it successfully in a case in which he had previously been compelled to induce labor on account of the vomiting.

I shall briefly describe two cases of vomiting, taken at random from my case book.

Case 1. Mrs. W. H., white, twenty-one years old; last menstruation, April 19, 1887. On May 29 she was suffering with severe vomiting. The usual remedies failing, she was given tincture of iodine in five-drop doses to be repeated in half an hour if necessary, otherwise two or three times a day. Her vomiting ceased after the second dose and was held in abeyance by an occasional dose of the iodine. She went to term and was delivered naturally.

Case 2. Mrs. R. L., white, twenty-eight years old; last menstruation, April 2 to 9, 1887; first seen June 5. Had been suffering from extreme gastritis for two weeks; could retain nothing on the stomach. She was given pepsin, bismuth subnitrate and other remedies without success. Tincture of iodine was then given in five-drop doses and stopped the vomiting with the first dose. The doses were continued at long intervals for a few days and were then given occasionally. She went to term and was delivered naturally.

The successes which have accompanied the administration of the tincture of iodine in the treatment of the vomiting of pregnancy encourage me to impress the subject upon your minds. The compound tincture is a more palatable preparation and would, I think, be equally efficacious, as would also the syrup of hydriodic acid, but I have preferred to continue it in the use of the simple tincture.

PERSISTENT SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

BY JAMES M. BROWN, M. D.,

PHYSICIAN IN CHARGE OF THE EAR DISPENSARY OF THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA; OPHTHALMIC AND AURAL SURGEON TO THE WESTERN TEMPORARY HOME.

That suppurative inflammation of the middle ear is not so simple or easily controlled as many, both of the profession and laity, are disposed to think, is now well known. A brief reference to the classified report of the Ear Dispensary of the Hospital of the University of Pennsylvania for the past three years will show that it is a condition frequently existing for many years. Out of a total number of 293 cases there given,

35	had continued	6	months.
35	" "	1	year.
60	" "	3	years.
42	" "	5	"
45	" "	10	"
37	" "	20	"
19	" "	30	"
11	" "	40	"
7	" "	50	"
2	" "	60	"

Thus it will be seen that about seven per cent. of these 293 cases had continued from 40 to 60 years; 19 per cent. from 20 to 40 years; 29 per cent. from 5 to 20 years, and 44 per cent. from an acute stage to 5 years.

Is there any other condition so offensive to both patient and friends and generally so amenable to treatment as this, which would be permitted to continue for such indefinite periods? The self-consciousness of a foul ear, the dread of offending both sense of

smell and sight in others, has deprived the possessor of such of many hours of pleasure, has been a hindrance in life-pursuits, completely changing the intentions or aspirations of its unfortunate victim. I fear too often the profession is the cause of dereliction in treatment of these cases; for it is a story often told the specialist by the patient, after years of uninterrupted suppuration, that the family physician in early childhood said: "Let it alone, as the child grows older he will grow out of it;" and later, when such a delusive hope was not realized: "it has continued so long now it must not be checked or it will break out elsewhere." Led by an ignis fatuus into the "slough of despond," "the last state of that man is worse than the first."

The fact that diseases of the ear received such slight attention in the course of instruction formerly given in our medical halls is the probable cause of their being so little understood, or so lightly regarded, by the general practitioner. It should therefore be a matter of gratulation, and is of no slight import, to be able to note that the more progressive medical schools of to-day have embraced in their curricula both didactic and clinical teaching in this branch. Thus the graduate of to-day should enter the practice of his profession, not only well grounded in the general principles of diseases of the ear, but also with a practical or clinical experience.

It is not, however, to this that I desire to ask attention, but to some of the circumstances which tend to keep up persistent suppuration of the middle ear and its adjacent structures, in spite of apparently well-directed measures to control it. Granting, in a general way, that suppuration means perforation of the tympanic membrane, I may say that the nature of the perforation has in itself a decided influence on the continuation of the discharge. Proper drainage here, as elsewhere, favors subsidence of the inflammatory action and promotes reparatory processes. While it is not anatomically exact, it may be said in a surgical sense that the middle ear is a closed cavity until the inflammatory process ruptures the tympanic membrane. After rupture occurs, drainage is established—defective or sufficient, according to the size and position of the perforation. When this is small or high up in the membrane, it is necessarily imperfect; when the perforation is of insufficient size to favor the outflow of such a fluid as pus, it is only by methods applied through the naso-pharynx—such as swallowing, blowing the nose, etc.—that the cavity is freed of its pus. When the perforation is high up, the pus must collect in the middle-ear cavity until it reaches a depth equal in height to the point of perforation before it can flow outward. These unfavorable forms of perforation not only tend to persistency, but are the cause of secondary morbid changes. The continued saturation of the mucous membrane with pus macerates and destroys its delicate structures, and in the process of repair exuberant granulations are thrown out and may cover the entire surface, or develop into polyps; or the process of maceration, extending deeper, may destroy the periosteum and cause death of the bone. As a result of the presence of polyps, we may have occlusion of the auditory canal or perforation and extension of the inflammatory process. While it is usual in such cases to have violent acute symptoms, it not infrequently happens that the symptoms are of a mild and more chronic form, leading to the belief that the condition is suppurative inflammation of the tympanic cavity only. The delicate periosteum lining the mastoid cells and the antrum, or covering the bony interstices, is destroyed; the bone structure softens and disappears—not so much as sequestrum but rather by a process of disintegration which may continue for years—until, as in two cases under care at the University Hospital during the past year, there is nothing left but an outer shell of mastoid bone.

In the tympanic cavity, long continued suppuration is sometimes caused by a communication of the original trouble to the upper and inner portion of its bony wall, and thus, hidden beyond and above the remnant of membrane, it may, without careful examination, remain for a long time undiscovered. This point is also a favorite seat for polypoid growths, which may not be of sufficient size to reach the perforation, or which may hang down on either side and escape notice.

There is sometimes found, especially when there are complications in what is called the tympanic attic, or where the perforation is in the membrana flaccida, necrosis of one or more of the auditory ossicles. So persistent is the suppuration here, that these cases were formerly considered as incurable. Persistency is sometimes the result of a diseased condition of the upper portion of the

respiratory tract, particularly in the subacute and chronic forms of rhinitis and pharyngitis.

Hypertrophy of the tonsils or of the turbinated bodies, or of the mucous membrane of the naso-pharynx, must be considered as exerting a direct influence on the nutrition of the mucous membrane of adjacent cavities; for it must be remembered that the lining of the middle ear consists of a membrane which performs the double duty of mucous membrane and periosteum, endowed with a highly sensitive structure, richly supplied with both blood-vessels and sensory nerves—the latter derived from the tympanic plexus, whose extensive anastomoses bring it into intimate sympathetic relation with disturbances in remote portions of the system.

In this connection I desire to call particular attention to the unfavorable influence of excessive or perverted sexual indulgence. After very extended and careful clinical observations I am fully persuaded that it is in direct causal relation to the condition under consideration.

In constitutional conditions, such as tuberculosis, scrofula, syphilis, both hereditary and acquired, and diabetes mellitus, the tendency to rapidly destructive chronic suppuration after a usually mild or painless acute stage, is well known. It seems indeed not only that the inherent resisting power of the mucous membranes of persons in these states is deficient, but also that they have great lack of reparatory power, as manifested in the inability to secure gratifying results from treatment. It is true that some cases show a temporary subsidence of the aggravating symptoms, but these recur on the least indiscretion or exposure to undue climatic or meteorological influences. In syphilis the studies of Gradenigo have shown that the specific effect is primarily in the internal ear, and secondarily a suppurative inflammation of the middle ear with proliferation and hyperplasia of the connective tissue, and eventually necrosis—the inflammation and subsequent lesions not differing in any appreciable degree from those in disease of simple origin. Sexton and Burnett, whose opinions have more particular reference to non-suppurative inflammation, maintain that the primary change is in the middle ear. Be this as it may, when suppuration occurs as the result of a specific infection it is of obstinate character and very recurrent. In tuberculosis Moos has found hyperplasia of the tympanic membrane, especially in the cuticular layer with engorged blood-vessels, proliferation and purulent infiltration, which destroyed the membrane and left the handle of the hammer bare, thus tending to produce necrosis of it. Habermann notes the propagation of bacilli through the interstices of the membrana propria, and says: "The great obstacle to recovery is the persistence of a local tuberculous condition, which is an unending source of new inoculations."

Many other co-existing diseases or constitutional conditions to which a retardation of the cure of suppurative ear-disease can be traced, may be noted, such as Potts' disease, anemia, leucocythemia,[1] prolonged nursing, grief, bad food or bad hygienic surroundings, habits of life, such as excessive use of tobacco or alcohol, etc.

The original idea of this paper was to call attention to the causes only, of continued or persistent suppuration of the middle ear; but this study has for its object the cure of these conditions. Passing over the ordinary or routine treatment applicable in general to all simple and uncomplicated suppurative cases, I will briefly describe the methods I have found most effective. The first principle here, as in all surgical procedures, is cleanliness, the removal of all effete material, and procuring as nearly as possible a strictly asceptic condition of the parts. Thorough cleansing of the middle ear can be effected only through a proper opening in the tympanic membrane. If this be insufficient in size, or unfavorable in position for either drainage or cleansing, I invariably resort to surgical procedures at once. To do otherwise is mere temporizing. If the original perforation is in the middle or lower third, my plan is to enlarge it by an incision downward to the periphery of the membrane; if it is in the upper third or in the membrana flaccida alone, I usually enlarge it by an incision directed towards the nearest part of the margin, preferring that the other end of the incision should reach the ossicles. I make also a counter opening in the lower third. The use of an eight or ten per cent. solution of cocaine, applied for five or ten minutes previously, renders these procedures comparatively painless. Then, with the applicator and absorbent

[1] Two cases of ear disease in leucocythemia—one of splenic, the other of lympho-splenic origin—have come under my notice.

cotton, I carefully mop out all secretions. The use of a four per cent. solution of cocaine, applied on pledgets of cotton for a few minutes produces a shrinking and retraction of the thick and irregular edges of the perforation, if it be an old one, and of the hypertrophied or granular mucous membrane of the tympanic cavity, rendering the cleansing process more satisfactory. Where the secretion is tenacious, or inspissated, or caseous, the use of Dobell's solution introduced with Blake's middle-ear syringe is of great service. It must not be used with the force of an injection—for this is what I most strongly condemn — but rather as with a pipette or dropper. The frequent use of the Politzer bag, or of the Valsalvian method, during all these manipulations, is indispensable; though the latter tends to temporary congestion and even bleeding when the mucous membrane is in a state of exuberant granulation.

Finally, after thoroughly drying the cavity, the use of an application to modify the morbid process and to secure asepsis is demanded. Amongst the many remedies used for this double purpose, none has been found so efficient as Listerine, diluted with water to one-fourth its full strength, according to the sensitiveness of the parts. This is applied first by simply mopping the surface or lightly touching it with pledgets of cotton saturated with the solution. It may give rise to sharp pain lasting from a few seconds to one or two minutes, but having a local anæsthetic effect, it soon produces a very agreeable sensation of warmth, and then I apply a similar pledget, allowing it to remain in light contact with the perforated membrane for several hours, where it slowly gives up its antiseptic fluid and absorbs the pus.

I am aware that there will be urged against this method the same objections that are justly made against the use of dry powders, such as boric acid, iodoform, etc., viz., that they confine secretions at the risk of producing secondary disorders. But after an experience of over one thousand applications of this kind, in both simple and complicated cases, I have yet to see the first truly unfavorable symptoms. This may be due in part to the observance of the following precautions: A free outlet is secured by proper perforations in the tympanic membrane; the pledgets used for the Listerine are made narrow and tapering, and of such size as to very loosely fill the external canal; they also rest quite lightly against the membrane. The first applications are permitted to remain only about six hours, with instructions to the patient to remove them sooner on the slightest indication of pain, or feeling of fulness in the middle ear. I can recall only one or two cases where even this has been necessary. Later applications may remain from twelve to twenty-four hours.

I have not, as a rule, found favorable results from the use of caustic or astringent solutions, believing, with Burnett, that they cause swelling of the edges of the perforation and consequent interference with drainage. Corrosive sublimate, zinc, silver, carbolic acid and thymol, I have used in solutions of varying strengths; but they are not all germicides, and many of them prove highly irritating. I have had good results with mild solutions of nitrate of silver, applied at intervals of from twenty-four to forty-eight hours; or with finely-powdered burnt alum: one part, combined with two parts of iodoform, after the formula of Buck—applied after thorough cleansing, so that they may come in direct contact with the diseased structures. I, however, confined their use to cases in which the perforation is extensive, amounting to almost complete destruction of the membrane and where the inner wall of the tympanum is covered with granulation tissue. I have had but limited experience with peroxide of hydrogen, confining its use more particularly to where the remnants of Schrapnell's membrane became inverted and formed sulci or pouches for the retention of pus and débris, as described by Sexton, or where the muscular or ligamentous structures, or perhaps the retracted membrane, formed bands of adhesion across the tympanum with narrow interstices difficult of cleansing. Its effervescing qualities force it into these minute recesses, carrying with it the beneficial aseptic effects of the nascent oxygen.

Enlarging the perforation should always be followed by a thorough exploration of the tympanic cavity, especially that part known as the attic, and also a careful examination of the ossicles. The probe, slightly bent near its extremity, should be passed in all directions; when, if there is denuded bone, it will be discovered and should be very carefully curetted, remembering that it is an extremely thin plate of bone that intervenes between the instrument and the meninges of the brain. If necrosis of the ossicles is discovered they are removed

wholly or in part according to the extent of their involvement; though of course it must not be forgotten that the retention of the stapes in situ is of importance in preserving intact the internal ear and the function of hearing. Proper aseptic treatment is then pursued usually after the manner given. In two cases in which the malleus and incus, together with the membrane, were removed during the early part of last year, a speedy cure resulted, followed in one by re-formation of the membrane which, while it more completely effected a cure by closing an abnormally open cavity, reduced the hearing power from thirteen to seven inches.

Where the disease has extended to the mastoid cavities, pursuing the mild but destructive course alluded to in another part of this paper, heroic measures are needed. In such cases it is proper to make an artificial opening through the external wall posterior to the auricle and, after thoroughly curetting the cavity, to free it of all dead or disintegrating bone, endeavoring under proper antiseptic precautions to stimulate healthy granulations and thus if possible to obliterate the cavity. The two patients before mentioned did not appear for treatment until perforation of the outer bony wall had taken place with probably greater destruction and more unfavorable results than would have occurred if they had been seen earlier, and an artificial opening with proper subsequent treatment had been made. Senn's method of bone implantation might be tried in these excavated mastoids, though difficulties would be encountered—not wholly insurmountable, I trust—in securing the necessary continuous aseptic condition of the part.

Where prolonged suppuration is due to disease of the naso-pharynx, it must receive appropriate treatment, the details of which are not properly within the scope of this paper. Suffice it to say that improper treatment here can of itself be a cause. I have known it to be kept up by the continued use of a nasal douche, self prescribed and unnecessary. Any, or all other conditions or manifestations of disease, both local and general, or their underlying constitutional tendencies, must be thoroughly studied and appropriately recognized in treatment; and, finally, to obtain a well-measured degree of success, there must be taken into proper consideration all that pertains to the health, habits, occupation, temperament and disposition of the individual affected.

NECROSIS OF THE MAXILLARY BONES AFTER MEASLES.

BY JAMES F. McCARTHY, M. D.,

DUBUQUE, IOWA.

On November 27, 1887, I was called to see Peter L., residing with his parents at 2310 Couler Avenue. The boy was eight years old. Family history good. Had three sisters and two brothers all in good health. Twelve hours before I was called, his mother noticed a rash on his face and chest, and I found a mild form of measles fully developed. The diagnosis was made, and I ordered that no medicine be given, but, should complications arise, to advise me when they made their appearance. Three days later I was sent for and informed that the boy had severe pain in his left ear. Upon examining the patient I found the left jaw swelled, somewhat red, and he complained of severe pain in his left ear and jaw. I applied dry hot applications to the jaw and ear, and administered five minims of tincture of opium. The temperature was 103½°, the pulse 140, the respiration 54 per minute; and the boy was constipated. I gave compound laxative powder to relieve the constipation, and applied a jacket poultice of greased flannel covered with oiled silk, as capillary bronchitis was well marked in both lungs. I gave internally quinine in powder, carbonate of ammonia, whiskey and beef tea.

December 1 the temperature was 103°, the pulse 150, the respiration 64, the ear suppurating and the pain relieved. The jaw was larger and more painful.

I noticed the two incisors and the canine tooth of the left upper jaw protruding from their sockets. The patient was very weak and unable to open his mouth over one-half inch. December 2 the condition was the same, and the treatment was continued.

December 3 the temperature was 103°, the pulse 150, the respiration 60. The three mentioned teeth were loose and easily removed. Upon examining the bicuspids, the incisors and canine being previously removed, I found them loose. There was an exceedingly disagreeable odor and very little suppuration. The latter was swallowed, except when syringed out with a bichloride solution 1-2,000. December 4 I removed the remaining teeth in the left upper jaw. December 5 the temperature was 100½°,

the pulse 120, the respiration 38. The patient felt somewhat better. December 6, 7, 8 and 9 the condition continued the same, and the boy took liquid nourishment freely. December 12 the temperature was 99°, the pulse 120, the respiration 28. The face was now very much swollen, the left eye closed and turned towards the nose. The boy could not open his mouth sufficiently to allow a careful examination to be made, but I discovered a large piece of loose bone, and supposed it to be the alveolar process of the upper jaw. I now gave iodide of potassium with tonics. The next day the condition improved.

By December 24 the temperature was 99°, the pulse 120; the boy had no cough and took nourishment well in liquid form; he was still unable to stand. I found all the teeth loose in the left side of the lower jaw except the last bicuspid. December 31 the swelling of face was reduced, and the patient felt stronger.

January 17, with the assistance of Dr. Bigelow, I administered chloroform, and forcibly opened the mouth, grasped the bone with forceps and removed it. The left superior maxillary was removed from the median line to the zygomatic fossa, including all the alveolar process and up to the infra-orbital foramen on the facial surface and to the palate bone on the internal surface, leaving only the orbital surface. The palate bone was left intact. February 6, with the assistance of Dr. Minges, I removed the alveolar process of the left side of the lower jaw, leaving the last bicuspid, although removing a portion of the alveolar process surrounding it.

May 1, 1888. I found the boy with his eye straight, no deformity of face, except that when attempting to laugh or whistle his lips would draw towards the left. The superior maxillary was reproduced and three teeth were making their appearance—one incisior, one canine and one bicuspid. In the lower jaw all the old teeth that were removed are replaced by new ones; the old bicuspid still remaining.

This form of necrosis occurs more frequently in children from three to eight years old, and is a sequel of the eruptive fevers, more particularly scarlet fever. It is more likely to occur at this period of life, when nature makes its greatest demands to supply nutrition for the removal of the temporary and to supply nourishment for the permanent set of teeth. There are cases on record where the bony structures are reproduced (especially the inferior maxillary) but nowhere do I find where teeth have been reproduced in the upper jaw. Nor can I find any account where the superior maxillary is replaced. The most interesting part of this case is the rapid destruction and separation of the parts, the almost complete reproduction of the parts and the absence of any marked deformity.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Meeting, September 24, 1890.

The Vice-President, John B. Roberts, M. D., in the Chair.

Dr. Joseph P. Tunis read a paper on

Rib-Fracture from Muscular Action, with Forty Collected Cases.

In this paper he described and analyzed the histories of forty cases of fracture of the rib from muscular action and gave a summary of his conclusions. He found that of these accidents, more than one-fourth have occurred in individuals of apparently sound constitutions; and the left side has been most often affected, either the middle or anterior third of the rib being the usual position of the fracture. Of forty-nine fractures, only five had occurred above the sixth rib; the great majority had been among the lower six (omitting the twelfth). The exciting causes had been: Coughing, twenty-five; muscular effort, eleven; sneezing, three; and vomiting, one. The determining cause had been the action of the muscles, unless thirty-four observers had been deceived by the testimony of patients who could gain nothing by such deceptions.

Herard reports the youngest example of this accident, in a woman, twenty-two years old. No case has been published younger than this—no doubt on account of the great elasticity of the ribs in youth.

In the forty cases studied by Dr. Tunis, two patients died of some intercurrent affection. The remaining thirty-eight made a complete recovery in the usual time.

More men (twenty-two) had suffered than women (seventeen), and the average age was forty-eight years.

In conclusion, Dr. Tunis said that the difficulty and the doubt which have attended the diagnosis of many of these cases ought to disappear as more and more examples of this accident are reported. Already, by the consent of the majority of surgeons, and by the evidence of accumulated cases, the possibility of rib fracture from muscular action, even in persons of sound constitution, seems sufficiently proven.

Dr. Joseph Price then read a paper on

Minor Gynecology as a Cause of Pelvic Trouble.

(See page 441.)

In the discussion that followed Dr. E. E. Montgomery said: I fully second what Dr. Price has said with regard to the frequency of troubles necessitating major operations which result from the various methods of procedure in minor gynecology. I do not think that any person who has practiced gynecology has not met with cases of inflammatory trouble of the uterus traveling to the ovaries and to the peritoneum, giving rise to conditions which have been described as peri- and para-metritis which have resulted from the use of the uterine sound. When we consider the fact that the uterine sound has been a part of the routine method of examination of many physicians practicing this branch of the profession, it is not surprising that these troubles should so frequently occur. The uterine sound, as has been stated, should not be introduced in any case until the patient has been thoroughly examined and the presence or absence of any inflammatory condition in the uterus or about it has been eliminated.

The practice of Emmet's operation upon cases as soon as they consult a physician for treatment, where a slight laceration is found and the physician at once attributes the symptoms to this lesion and performs the operation, has justly led to its discredit. The operation is undoubtedly one which, in some cases, is of great benefit; it is, however, in properly selected cases. No case in which the presence of other inflammatory conditions has not been eliminated or cured by proper methods is suitable for the operation. One reason, I think, why Emmet's operation has proved so disastrous in many of these cases is the fact that, as the result of sub-involution of the mucous membrane from this lesion, we have an increased amount of secretion which, after narrowing of the cervical canal by the operation, is unable to escape freely; consequently, the uterus becomes dilated to a certain extent, and this favors more rapid extension into the Fallopian tubes and the development of serious trouble. One cause of the extension of inflammatory trouble from the uterus to surrounding parts is insufficient drainage from the cavity of this organ.

Then, again, Dr. Price very justly condemns the use of irritating materials which have been employed in the cavity of the uterus. Many who have proposed agents for the treatment of inflammatory troubles in the cavity of the uterus have seemed to labor under the idea that the only method of curing these inflammatory lesions was by destroying the mucous membrane in which they originated. The application of nitric acid, chromic acid, nitrate of silver in stick, and the like, results in relief by destroying the mucous membrane from which the secretions take place. In this way inflammation may be caused which may extend to the deeper structures of the uterus and to the pelvis. I fully agree with all that the gentleman has said in regard to the importance of care in the treatment of these various classes of cases, to avoid adding to the discomfort and to the crippling of the whole future of the individual who applies for treatment.

Dr. John C. Da Costa said: I am glad to hear Dr. Price speak of the dangers of minor gynecology, but I do not know how we shall get along without it, unless we adopt the rule (which he leads us to infer from his paper is his) that in all these ailments we open the abdomen and remove the tubes and ovaries. I hardly think that Dr. Price is right in attributing the major pelvic troubles to gynecological treatment, for, from the little that he has said, I think that we may infer that the pelvic trouble already existed, and the practitioner made a mistake in treating the uterus rather than the uterine appendages. I am glad to hear him speak in regard to Emmet's operation. I have heard long lists of cases reported with the statement that "all recovered without bad symptoms." That has not been my fate. One of the hardest fights that I have had for a woman's life has been after an operation on the cervix. Many unnecessary operations are done on the cervix. They are often done by men who want to make a record—by men who practice gynecology without knowing much about it. They see a torn cervix, and, without knowing whether

or not the symptoms are due to that, proceed to operate. They do it, also, without properly preparing the patient beforehand. Where a larcerated cervix needs operation, as a rule, it needs previous treatment. If the cervix is put in proper condition, there will not be the same liability to bad results.

There is probably no instrument that is more used in minor gynecology than the dilator, and there is probably no instrument that can be more abused than the dilator. Professor Goodell has reported to this Society many cases in which forcible dilatation has been used with grand results. I have used forcible dilatation in many cases, and have never had any bad results. The reason is that, when I began the study of gynecology, I was taught how to use it properly and not to use it in every case. Take the sharply-bent womb, and all the pessaries made will not straighten it. You must put something inside, either a dilator or a sponge-tent. Again, let the uterus become congested and the mucous membrane swollen, closing the uterine canal and causing dysmenorrhœa. You can cure that case in from two to four treatments by dilatation, while you may treat it by other means for months without doing good. The dilator is a surgical instrument, and one which must be handled carefully. You must know how to do your work before you attempt to use it.

Now, in regard to the use of the sound. I hear gentlemen state that they can outline any uterus without the sound. I have tried that, but have never been able to do it. Take a uterus enlarged, like this sketch, and I defy any one to say in what direction the canal runs. It may be a uterus in the normal position with a fibroid of the posterior wall, or it may be a retroflexed uterus with a fibroid on the anterior wall, or a plastic mass between the uterus and bladder. It behooves us to use the sound carefully. If a man tries to force the sound into the canal, he will certainly do damage. If, however, he will outline the shape of the uterus as well as possible, and then bend the sound to fit as nearly as may be, and then make effort after effort, he can, in the most distorted uterus, get the sound in without damage.

Then, in regard to the curette. These usually have a sharp, cutting edge. Such an instrument is hardly safe for an able practitioner to use, and is not safe at all in the hands of an unskilled person. Where inflammation extends from the uterine cavity to the tubes, after the use of the curette, it is not so much from the instrument as from the man who uses it.

I should be loath to give up intra-uterine applications. I have used them a long time, and, while sometimes pain has been caused, they have never done any serious damage. As Professor Wallace used to say, "Some uteri are sensitive to the slightest touch, and some are as stupid as oxen." When you make an application, you must know the uterus which you are treating. Nitrate of silver used to be a common application, but it is one of the worst that you can make. It will, as a rule, produce cicatricial contraction of the canal. Nitric acid, although so much stronger than nitrate of silver, is not so apt to do this; but nitric acid is rarely required. In a case of fungous granulation, I should not hesitate to scrape out the whole inside of that uterus and make a strong application, and, after watching the patient for a short time, send her home and not expect to have any trouble. This is because I know my cases. I do not do it to every case.

I think that Dr. Price will find that the dangers from minor gynecological operations are more because of want of good, sound judgment in the practitioner, and not so much in the operation itself. I cannot agree that pelvic troubles are always due to these minor operations.

Dr. Joseph Hoffman said: I have put on record in the Obstetrical Society a case where the uterus was perforated by the curette, and this case serves to show that the remarks of Dr. Da Costa enforced the argument which Dr. Price endeavors to bring out, to wit, the danger from the wide-spread use of the uterine sound, the curette and the dilator as advocated by some. I believe that, if we took all the gynecological instruments invented and put them together and multiplied them by ten, we should have no such instrument as gives such bad results as the dilator. It is easy for Dr. Da Costa to claim that he knows when to use it and when not to use it. I think that he overestimates his ability to say whether he has ever done harm by it, for patients rarely come back after they are harmed. I have seen today two patients that had been treated by the curette, and from whom I have removed the appendages. In one case that I know of, the uterus was torn by the dilator, then a sponge-tent was put in and allowed to remain I do not know how long. You know

the rest. In the case in which the uterus was perforated by the curette, the operation was done by a gynecologist of considerable experience. Nevertheless, the uterus was ruptured and peritonitis was brought on and abdominal section was necessary to save life. I have to-day had two other women who were treated by minor gynecology; they were both left very miserable. In one the vagina is much contracted and the pelvic viscera are certainly affected. In one of these cases, especially, electricity was used *ad nauseam*. The history is this: first, dilatation and scraping; then, closure of the perineum; and then, opening of the abdomen. In regard to operations on the cervix and perineum, we are to remember that operation on the perineum is not so apt to cause trouble as operation on the cervix.

What operations on the cervix are necessary? Every cervix with a slight laceration does not require operation. Some of these heal without suture, although traces of the damage may remain. The preparation of the patient often shows that operation is unnecessary—puncture and the ordinary derivitive procedures so reducing the size of the cervix that the laceration almost disappears.

In regard to ulceration of the cervix, I do not believe that there is such a thing, except as the result of bad laceration or specific disease. In laceration the ulceration is only apparent; it is really an erosion due to eversion and hypertrophy.

The curette in some cases seems to be a necessary evil which we cannot do without. I have found it useful in getting rid of putrid débris from a miscarrying uterus, in the early weeks of pregnancy, when the use of the finger is thoroughly clumsy and painful, if not impossible, without previous dilatation with a tent. In the presence of such detention, the use of the tent is not without danger, since, during the period of its presence in the cervical canal, all channel of escape for decomposing material is shut off. I can say that I have had no bad results, that I know of, in the use of the instrument.

As to the use of the sound, its use seems more confined to those who are wedded to the traditions of the instrument than from any *actual* value that can be attached to it. On the other hand, it is capable of doing much harm in the hands of those who need it most, because they know least about it and the parts with which it has to deal.

Dr. William E. Ashton said: The question of the use of the dilator depends upon one or two facts. First, as to the condition of the uterine appendages and their surroundings; and, secondly, properly selected cases. I do not imagine that any one would use the dilator when we have present acute or chronic inflammation of the uterine appendages. I think that any one who has had experience in the use of the uterine dilator would hesitate to employ it except in selected cases. I believe that where we have the pelvis perfectly free from local disease, and in cases where the uterus is strongly anteflexed and perfectly movable, and upon the introduction of the sound we find that there is a point of intense pain at the internal os, we shall find in a certain proportion of cases that good results are obtained from the dilator. It is nonsense to talk about the causes of dysmenorrhœa. It is only a symptom. The vast majority of cases of dysmenorrhœa are cases which have a distinct tubal or ovarian origin. It would be absurd to rapidly dilate in such cases.

In regard to Emmet's operation, I quite agree with Dr. Price in reference to minor gynecological operations dealing most disastrous results in the pelvis. We have to look only at the various clinics and see the recklessness with which various operations are done, to see why we have so many abdominal sections. The reckless use of the sound and of uterine applications are responsible for many of these cases. I hold that the sound should only be used after a diagnosis is made. If the diagnosis is made, of what use then is the sound? In a case like that figured by Dr. Da Costa, I do not care what direction the uterine canal takes. If it is a fibroid, I do not see of what use such knowledge would be.

I cannot understand how any man can use instruments where there are inflammatory conditions around the pelvis, because they are a source of irritation and may light up acute inflammation in chronic cases. It should go on record that the uterine sound should only be used by men who have a thorough knowledge of the pathology of the pelvis and who can appreciate the great danger incident to inflammatory troubles in the pelvis.

I agree with Dr. Price that there are few cases in which Emmet's operation is necessary. I grant that there are cases in which the uterus is in a state of subinvolution, where a plastic operation will bring about the cure, but I do not believe in operating

on the uterus if there is any diseased condition of the appendages. Any manipulation under such circumstances is apt to set up inflammation. Four years ago, I had a case of bad laceration of the cervix in a woman, with pus tubes on both sides. I refused to operate on account of the disease of the appendages. She then went to New York and was operated on by a prominent gynecologist, and died of large abscess, the result of the operation lighting up the old inflammation.

Dr. Da Costa, in answer to Dr. Ashton said: I probably did not make myself clearly understood. I do not want it understood that I would do an operation on the cervix if there was inflammation in the pelvis, such as pus tube or anything else. My teaching is: When there is violent inflammation in the pelvis, not to do any operation on the uterus, and to hesitate to use the sound. The discussion has run off from the original text, and it is for that reason that I make these additional remarks.

Dr. J. M. Baldy said: I think that there is no question in the minds of gynecologists that Emmet's operation is a much-abused operation. I think that it is also true that the vast majority of these ill-advised operations on the cervix are done by men who have no gynecological experience and who know very little about gynecology. I can recall two cases in which I was recently called to operate on the cervix by general practitioners, and by whom I was informed that the lacerations were very bad and that the women were suffering greatly. On examination, the tears proved to be comparatively slight, and needed no interference. There are some cases in which a cervix operation at first sight appears justifiable. These are cases in which a cervix is torn to the vaginal vault. I care not if the cervix be torn on both sides to the vaginal vault, if there is not eversion and erosion or much scar-tissue, there is no reason for operation.

I should be loath to give up forcible dilatation in certain cases. It is not to be done in every case of dysmenorrhœa, for the vast majority of cases of dysmenorrhœa are due to ovarian or tubal disease. I believe that in the vast majority of cases where trouble follows the use of the dilator, there has been pre-existing pelvic trouble. I do not think that a carefully done dilatation in a healthy pelvis will do harm. It is admitted that it does tear uterine tissue, but that this can cause trouble, unless the wound becomes septic, I am not prepared to admit.

The use of the sound in the hands of a doctor is in inverse proportion to his skill. The man who is skilled rarely uses it. In such cases as have been mentioned by Dr. Da Costa, I see no use for the sound. I do not see anything essential that it could tell. I must say that I have not seen a uterus of the exact shape he has figured on the board. In the vast majority of cases I have been able to tell which was fundus and which was tumor. If we are dealing with a fibroid, it makes no difference what wall of the uterus it occupies. I do not suppose that I use the uterine sound once a month.

The curette, I think, is a valuable instrument, but it is abused and used indiscriminately. After abortion, I find it most valuable. In some cases of chronic endometrial disease it is valuable. I believe that it will remove almost all necessity for intra-uterine treatment. I find such applications rarely called for, except, perhaps, the application of nitric acid or iodine, after the use of the curette. I think that the dull curette is useless. The only rational instrument to use is the sharp curette. I was recently called some seventy miles to see a case where the physician assured me that the uterus contained nothing, as he had twice gone over it thoroughly with the dull curette. I used a sharp curette and removed large masses of placental tissue. The sharp curette can be used with as little danger as any other instrument, if used properly in skilled hands.

Dr. J. M. Fisher said: I am engaged in treating a number of uterine troubles with electricity. Dr. Price has stated that the use of the electrode is fraught with much danger. That the introduction of any instrument into the uterine cavity carries with it a certain risk is not denied, but that the electrode is especially responsible for many of the diseases can certainly be questioned. There are certain diseases of the uterine tissue and lining membrane that can be most effectively treated by properly applied galvanism. I can cite one case in which the use of electricity saved the patient from undergoing a major pelvic operation. A woman, forty-two years of age, had a fibroid uterus with hemorrhages, so that she was confined to bed half the days of the year. At the time that I was called she had been laid up for nine weeks and was exsanguine from loss of blood. She had been treated by two good practitioners, and, failing to

give her relief, operation was proposed and about to be done. I made a positive application of electricity, and, after the first or second application, the hemorrhage was arrested. Four applications, extending over a period of twenty-one days, were made. This was in November and December, 1889. After that she menstruated regularly until May, when she was again seized with hemorrhage. I was out of town, and the bleeding continued three weeks. On my return, I made a positive application of electricity and since then the menstrual discharge has been regular, lasting three or four days.

Dr. C. P. Noble said: I am glad that this matter of uterine sound has been brought up, because I am convinced, as the result of my experience, that the less the uterine sound is used, the better for the patient. In most cases but little information is gained. Recently a case passed through my hands in which the question of pregnancy was mooted. She afterwards fell into other hands, and the sound was passed three inches and the patient was supposed not to be pregnant. She was, however, seven months pregnant, as subsequent events showed. The information given by the sound is often delusive. I, however, cannot see that the simple passage of the sound, provided it be clean and passed through a speculum, with a clean cervix, should set up pelvic inflammation, provided such trouble does not already exist. This, however, is neither here nor there, for I do not see that we need to use the sound in diagnosis. In small uteri it is not needed, because the organ can be outlined bimanually; while in large uteri, where tumors are present, the instrument may not reach the fundus, and so give incorrect information.

I must agree with Dr. Baldy, rather than with the author, in regard to rapid dilatation. I should be loath to give it up. I have never seen harm follow rapid dilatation in any case. This is due to the fact that dilatation has been used in cases in which the disease is limited to the uterus. I agree that it is useless and dangerous to dilate the uterus when tubal disease is present. In uterine disease it is capable of doing a great deal of good. I am quite sure that a certain number of cases of tubal disease are set up by a narrow cervix. The secretions of the uterus cannot gain egress and set up endometritis, and the inflammation travels into the tubes. In these cases, if the cervical is dilated to allow the freer egress of secretions, it will be a positive factor in the prevention of tubal inflammation. In such cases as were mentioned by Dr. Ashton, of acute anteflexion, the dilator does a great deal of good.

In fact, in regard to all these minor measures which have been mentioned to-night, I find them of service, but the fact must be emphasized that they are useful only when the disease is limited to the uterus; and that the uterus should not be operated on, in any way, in the presence of pelvic inflammation, particularly abscess.

Why we should give up the curette I cannot understand. There are many cases of hemorrhage from the uterus due to uterine disease purely, where there is no ovarian or tubal disease. In such cases the use of the curette will permanently control the hemorrhage.

I think that one reason septic troubles follow minor operations is because antiseptic precautions are not observed. I think that is the case with the dilator. If used on the office-table, it is impossible to employ complete antisepsis. If such precautions are used and there is no extra-uterine inflammation present, I do not think that inflammation will follow any of the minor gynecological operations.

Dr. Joseph Price said: I am sorry that the discussion has taken the direction that it has, for it does not give me an opportunity to express myself thoroughly; it does not give me an opportunity of pulling out a number of telegrams; it does not give me an opportunity of calling things by their right names. I have thrown down the gauntlet, and no one has quite taken it up. Some one has spoken of minor gynecological methods. In a recent article a writer prefaces what he has to say by giving details of methods for the treatment of "ordinary gynecological troubles." I do not know what "ordinary" gynecological troubles are. If it means from 9 o'clock to 3 in an office, with a nurse and a Sims's speculum, peeping at cervices and taking ten dollars from each patient, then I understand it. He is the great mischief-doer. He tinkers, dilates, curettes and passes the sound, and in from four to six weeks I get a telegram to come and open the abdomen to save the patient's life; that the woman is leaking; that she has a pulse of 130–140, with a temperature of 104°. This occurs weekly.

A speaker stated that there is no harm in electricity. Three fibroids in that jar have

pus in them as the result of the use of electricity. Of the twenty specimens in that jar removed during August, fifty per cent. followed dilatation, closure of the cervix, the use of the sound and the curette. These specimens have come from four clinics in this city and from ten prominent gynecologists. They all had sections to save life, and all were greatly complicated operations.

In regard to the sound, Dr. Ashton has said all that I am capable of saying. I have not used the instrument for many years. It is a common method of determining the existence of pregnancy, particularly among homœopaths, although not confined to them.

In comparison with the former state of the same subject, we must inquire into the causes which must have been at work during the past few years. This private-office work has a great deal to do with it. Many of these men are simply cervix-feelers and never find anything above it. There may be a mass larger than the uterus to one or both sides which he fails to find. They are not anxious to find them and would not be troubled by them.

The dysmenorrhœa in infantile uterus has nothing to do with the uterus. Pelvic pain in all infantile conditions of the uterus and pelvic viscera is exceedingly common. In these cases dilatation avails nothing. Dr. Baldy says that he uses the sound once a month. I presume that he dilates about once a month. I will consider together drainage of the uterus, referred to by Dr. Noble, and the use of the sound and dilator, referred to by Drs. Baldy and Noble. The sound measures about two lines in diameter, but we will say that it measures only one. I am sure that the drainage is quite sufficient through a canal one line or more in diameter. I find that those who have such a love for dilatation always precede it by the use of the sound. If they use it for drainage the indications are not clear.

Dr. Baldy said: I would ask to what part of my remarks Dr. Price refers. He has entirely misunderstood me. He stated that presumably I dilated for drainage, and that I first pass the sound, which will of itself establish drainage, without the dilator. My remarks were not in regard to dilatation for drainage or anything of the kind. I do not know that I specified what I would dilate for. Time did not admit of my discussing that point. In regard to passing the sound once a month, I do not know that I meant to make that a positive statement. The statement was simply made to illustrate the infrequency with which I used the sound.

Dr. Price said: I thought that I had made that clear. I said that I would call attention to two points—that of drainage, as referred to by Dr. Noble, and the sound and dilator, as referred to by Dr. Baldy.

In regard to closure of the cervix, there are a few cases in which the operation is of importance, but the ordinary method of closing the vaginal surface of the cervix only is very imperfect. This forms a large cuspidor-like cavity or retention sac. I have repeatedly split these up, freshened the cervix and made a perfect cure.

I have thrice this summer been called out of the city to open the abdomen in cases in which dilatation had been performed a short time previous.

Disease of the cavity of the uterus and fungous vegetations are far from common. Many healthy uteri are curetted, and it is thought that granulations are found. If the woman had been let alone, she probably would have conceived. The same is illustrated by a class of cases which I have studied among women locked up in a reformatory. Some twenty or thirty women, who had been living lives of chronic inebriety and lust for three or more years, had none of them conceived. After six months' rest, iron and good diet, the greater number conceived on leaving the institution. In these cases no intra-uterine treatment was employed, and only one examination was made to determine the position of the uterus and its relation to surrounding parts in the pelvis.

As a diagnostic instrument, I do not see why any one should want to use the sound. As a student, I never could see what was gained by the use of the sound; in the hands of the trained or experienced it is not needed, and in the hands of the inexperienced it is dangerous. Too much prominence is placed upon an unhealthy condition of the cavity of the uterus; it does not often exist; it is exceptional.

—Lead may be detected with sodium phosphate according to Bernstein (*Pharm. Zeit.*) in solutions where ammonia or sulphuric acid fail to indicate the element. It is necessary before applying the test to add to the solution a little acetic acid and then to supersaturate it with water of ammonia.

PERISCOPE.

Calcareous Fibro-myoma of the Uterus.

Dr. William Ingalls reports in the *Boston Medical and Surgical Journal*, August 28, 1890, the case of a woman sixty-three years old, married; never pregnant; who had had menopause at or about forty.

The prevailing symptom of her present condition was a comparatively moderate but uncomfortable distention by gas in the intestines, which increased, not very rapidly; but towards the end became very distressful. Treatment was unavailing. There were hours of quiet sleep within each twenty-four; but, for the most part, discomfort and pain overcame her phenomenal patience and pluck. On examining the abdomen twelve hours after death, it was found to be greatly distended. A large quantity of gas escaped when the peritoneum was punctured. Exposure of the intestines presented great distention; color dark; appearance of recent limited peritonitis over descending colon. Several points at various portions of the intestines gave evidence of impending perforations, and at slightest touch, openings took place; and through these issued an immense quantity of nearly black, grumous and foul-smelling fecal matter. Following the intestines down to the rectum, a large substance, hard and rough, was felt, which proved to be lying behind the bladder, between that and the uterus, which was small, hard and nodulated. The hard substance had pinched in a bit of small intestine, a portion of which, above and below, was cut off and removed with the mass. The specimen was a hard, firm mass, having two lobes, the larger the size of a big hen's egg, the smaller the size of a walnut. The two lobes were intimately adherent to each other. The outer surface was rough and irregular, covered with fibrous tissue. At one point a bit of small intestine was attached by a mass of fibrous tissue. The mass, when sawn through, was found to have an outer shell of calcareous matter, and an inner portion made up in part of cheesy material, but in great part of a very tough fibrous material. Microscopically, this was found to be fibrous tissue, with a fatty detritus. The mass was a sub-peritoneal fibro-myoma, which had become detached from the uterus, and had undergone a partial fatty degeneration, and calcification of the outer part, forming a shell.

Anæsthetic Leprosy Following Vaccination.

Dr. Sidney Bourne Swift, Resident Physician at the Leper Settlement at Molokai, in the Sandwich Islands, and Dr. D. W. Montgomery, of California, report in the *Occidental Medical Times*, September, 1890, the following curious case.

Peke, male, Kanaka, æt. 25, parents healthy. Has had two brothers and three sisters—one sister died at the Leper Settlement, a leper of the tubercular type. Peke has been a leper of the anæsthetic type for ten years, seven years of which have been spent at the Leper Settlement. In 1878 he was vaccinated, and about one year after, symptoms of leprosy appeared, and there is now a large anæsthetic scar at the site of this vaccination. He has, during his whole life, associated with lepers. Sixteen months ago he was a fine strapping looking fellow, and was employed as policeman and gravedigger in the hospital at Kalawao. He then left the hospital and lived with a woman named Kalehua, who is now, and has been for the last fifteen or sixteen years, laundress to the hospital. She was declared a leper two years ago. Within the last three months Peke has become pronouncedly ataxic.

A piece of skin was removed from the border of a typical lepra patch on the back about two and one-half inches to the left of the second dorsal vertebra. The border was slightly raised—inside the anæsthesia was complete, outside of it sensation was normal. Going from the border to the centre of the patch, there was a gradual loss of pigment. The border was decidedly not tubercular, consisting only of a slight elevation which extended regularly around the patch. Careful microscopical examination failed to demonstrate the presence of lepra bacilli. The sections were left for two to twenty-four hours in Ziehl-Neelsen's carbol-fuchsin solution, and decolorized either by Lustgarten's method, Gram's method or with a dilute solution of sulphuric acid, and then counter-stained with methyl-blue solution—neither lepra cell nor bacilli could be found. After staining the sections in alum-carmine the raised border was seen to be caused by the products of chronic inflamma-

tion. There were giant-cells surrounded by small round celled infiltration in groups looking very much like the formation of tubercles, but as, after diligent search, no bacilli were found, it was concluded that they were simply the products of chronic inflammation probably non-specific, owing to trophic disturbance following leprous disease of the nerves. A piece of tissue taken out of the anæsthetic vaccination scar was examined, but also with entirely negative results as far as lepra bacilli were concerned. It consisted only of scar tissue.

These results coincide with previous examinations of the skin lesions of the anæsthetic type of leprosy—no lepra bacilli have ever been found in these lesions, although searched for by a large number of competent observers. In this class of cases the disease process is really in the nerves, and the skin lesions are secondary. Prof. Dehio, of Dorpat, finds that even in the first indications of the tubercular type, no bacilli can be found. According to him the tubercle first makes its appearance as a small celled infiltration around the hair follicles and the sebaceous glands; these infiltrations by individual enlargement and by confluence form the complete lepra tubercle, and the bacilli are present only in this stage. If his observations be confirmed, it will furnish a rather strong argument to those who still persist in maintaining that the lepra bacillus is not the cause of leprosy, but a mere after-product.

One of the most interesting points in this case is, that Peak had been vaccinated one year before developing symptoms of leprosy, and that the vaccination scar became anæsthetic. The reporters ask: "Might it not be that with the vaccine virus, the virus of leprosy had also been inoculated?" In this they make a very wide guess, and show themselves far too ready to look upon a *post hoc* as a *propter hoc*. It would be hard to prove that the man *might* not have been inoculated with leprosy; but there is no atom of evidence that he was.

Tsa Tsin—a Chinese Emmenagogue.

The *Druggists' Circular*, August, 1890, says: There is a substance sold in New York under the name of Tsa Tsin, which appears to be composed of the leafy tops of some plant, and its botanical origin is said by its venders to be Rynchosa excavata. Hager states in his *Pharmaceutishen Praxis* that the tsa tsin of a certain German dealer is simply Roman chamomile. A pharmacist of New York states that the article now sold as tsa tsin differs materially in appearance and physiological action from that which he formerly handled. This, he states, he obtained through some European, and that since the death of this person he has been unable to obtain any of the article as it was procured through that source.

Stewart Culin, of Philadelphia, who has made a special study of the Chinese materia medica, informs us that "the drug nearest resembling this in name in the Chinese Herbal is called by the Chinese here tsai tsin (Williams' *Tonic Dictionary*, sai san). This drug has been identified as the *Heteropa asaroides*. It is very little used here and never except in combination with other substances. It does enter into the composition of emmenagogues, of which many kinds are used by the Chinese, nearly all compounds from standard recipes. They are made sometimes in the form of pills and are sometimes taken as a tea. It is possible that the name of the substance referred to is taken from the above and in fact the drug itself may be the same, as I have never compared the two. I do not regard the determination of the botanical origin of the drug as at all certain.

Pyoktanin [Methyl Violet].

The *Deutsche Medizinal Zeitung* for September 4, 1890, contains several interesting communications and abstracts in regard to pyoktanin. Dr. Schubert, of Reinerz, reports most admirable results of the use of solution of pyoktanin (1-500 or 1-1,000) as an antiseptic application to ulcerated wounds. The wounds which he treated were not large ones. Prof. Garrè, of Rübingen, is quoted as speaking against the usefulness of pyoktanin, of which he says that in his experience, while it did no harm it did no particular good in the treatment of fistulous tuberculous processes and in foul wounds and ulcers. Dr. Peterson, of St. Petersburg, concluded that both yellow and violet pyoktanin used as a pencil, or as a powder (two parts to 100 of talc), or in solution (1-100 and 1-2,000), has anti-bacterial properties in infecting wounds and ulcers. It seems to work as well as iodoform,

and has the advantage of being without odor. It has, also, apparently no unpleasant effects. Dr. Peterson says he has used pyoktanin in several hundred cases of chancroid, and for this has entirely abandoned the use of iodoform. In gonorrhœa good results were observed after the use of solutions of strength varying from 1-1,000 to 1-100. Dr. Peterson suggests the use of dilute muriatic acid for washing away the stains on the hands or linen of the operator.

Dr. Kessler, of New York, has recommended pyoktanin which he had used in forty-two cases with remarkable success. He describes in the *Medical Record*, July 5, 1890, the success he has had, and recommends pyoktanin most strongly. Dr. Fessler, of Munich, in the *Münchener Medicinische Wochenschrift*, June 24, 1890, uses pyoktanin in scalp wounds. He uses a solution of 1-1,000.

The various reports indicate that pyoktanin is a valuable antiseptic, notwithstanding the fact that there have been some men who have failed to get the success reported by others.

Treatment of Pulmonary Phthisis.

The *Lancet*, August 30, 1890, says editorially: Koch's views on the treatment of phthisis pulmonalis have received interesting support from the experience of a chemist, Herr Reuter, made public in April last at a full meeting of the Lower Austrian Industrial Union. Koch, it will be remembered, maintained at the Berlin Congress that among the remedies capable of bringing the malady to a standstill the salts of gold and silver are of the greatest value, and that among these the first place must be given to "cyan-gold." Reuter, who, as director of great *fabriques* of metallic wares at home and abroad, paid particular attention to those in which the articles in question were galvanically gilded or silvered, observed that in the latter industry the employés who had consumptive or tubercular symptoms, some indeed who suffered from hemoptysis, found marked relief in their work, and continued to improve so rapidly that in a few weeks their return to health was assured. The favorable impression made on Reuter, as to the curative effects of the gold and silver industry on phthisis, he found confirmed by the testimony of employés of every age in these establishments—men, young and old, who had the well-known symptoms of pulmonary consumption, even at an advanced stage, rapidly getting well as they continued from week to week at work. Further investigations strengthened that impression still more, till he had satisfied himself that for the disease in question a healing virtue resides in the prussic acid generated particularly in those workshops where "cyan-metals" dissolved in "cyan-kalium" are used. Impressed by Koch's views, the Medical Association of Vienna has since bestowed special consideration on Reuter's experiences embodied in the paper read before the Lower Austrian Industrial Union last April, and, while admitting the confirmation given to those views by Reuter, it is of opinion that the honor of priority in discovering the efficacy of gold and silver salts in the treatment of phthisis pulmonalis belongs undoubtedly to the latter.

Pasteur Institute Statistics.

The *Bulletin Médical*, September 3, 1890, reports that one hundred and forty-nine persons were treated in the month of June, [this must be a mistake, as June was reported long ago] 1890, in the Pasteur Institute. Of these, thirty-seven were bitten by animals in which the rabid condition was assumed from experiments made; ninety-two were bitten by animals regarded as rabid from a veterinary examination; twenty were bitten by animals suspected of being rabid. The animals that did the biting were dogs one hundred and thirty-one times; cats thirteen times; horses twice; hogs twice; and mules once.

From this it will be seen not only that does the number of persons expected to have hydrophobia continually increase in the neighborhood of the Pasteur Institute, but also that the lower animals are charged with showing the influence of its teaching. It is a good while since hogs and mules have been credited with having caused hydrophobia, but there is no reason why they should not do it in Paris.

Remedy for Phtheiriasis Pubis.

According to *La Médicine Moderne*, M. Brocq uses a solution of one part of corrosive sublimate in five hundred parts of vinegar as a lotion for destroying crab-lice. It is said that it not only kills the pediculi, but also detaches the nits.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

MEDICAL EXAMINERS AND THE HOMŒOPATHS.

Although we recognize the fact that a number of conscientious medical men regard with fear the establishment of Boards of Medical Examiners in the various States, the attitude of the REPORTER has always been favorable to it. One of the great difficulties in the minds of some of our brethren of the regular part of the profession, is that they dread any sort of recognition of the homœopaths, and it throws an interesting side-light upon this fear to discover that the homœopaths seem to be exercised similarly in regard to association with the regular part of the profession. Wherever attempts have been made to secure the establishment of State Boards of Examiners with the object of driving out quacks, pretenders and frauds, there opposition has been met with naturally from the quacks and frauds, and unfortunately, also, this has been assisted by quite as earnest opposition on the part of homœopaths, eclectics and timid regulars. In a number of States those medical men who were willing, for the sake of protecting the community and of elevating the standard of the profession, to keep in the background certain points upon which they did and do not agree, have succeeded in securing the establishment of Boards of Examiners. In all these States, as the readers of the REPORTER well know, the result has been entirely satisfactory to the best members of the profession, although it has brought out very natural complaints from some upon whom any sort of a medical standard would fit very uncomfortably.

The principles which underlie the establishment of State Boards of Examiners seem to us so fair and reasonable, and the result of their operations, where they have been established, seem to have been so admirable and satisfactory, that it is with great regret we call attention to the position assumed in regard to this matter at its last meeting by the Pennsylvania Homœopathic Medical Society. Just before its adjournment, September 19, 1890, this Society adopted resolutions inimical to the establishment of State Boards of Examiners and proposing instead measures which are thoroughly impracticable. These resolutions are presented in full in another part of this number of the REPORTER, and we call attention to them in order to express the hope that the members of the Homœopathic Society who desire the elevation of the standard of medical education and practice in this State will endeavor to secure more rational action at their next meeting. What was proposed at their last meeting has never been carried out, and never will be carried out. Another thing we would suggest to the members of this Society, and that is, that they cut loose, if they can, from that sect to which so many unprincipled frauds are or pretend to be attached, namely, the so-called eclectics;

for it is very unfortunate that any organization with the slightest claim to respectability should countenance the recognition of these Bedouins of the profession.

We trust that the Homœopathic Society will recognize the spirit which prompts those who—although they totally disagree with them in regard to the principles governing the practice of medicine and, being frank, cannot pretend to approve the position so many of them occupy in being called homœopaths, when they are really no homœopaths—would be very glad to have their co-operation in securing those things which we all believe to be desirable, namely, honesty and intelligence in the practice of our art.

It is the opinion of the REPORTER, after what it believes to be a thorough and kindly study of the whole subject, that very much would be done to improve the standing of the medical profession in Pennsylvania—as in every State—if we were all to agree to the appointment of a State Board of Examiners, leaving the naming of the Board entirely to the Governor. The REPORTER would be willing to run any risks that might be imagined, to any honest set of physicians, under such an arrangement; and we cannot understand the hesitation of those who want to make all sorts of conditions, with the view of protecting what they assume to be the rights of certain sets of practitioners. As a matter of fact the State as a State, and the community as a community, have no interest whatsoever in our discussions in regard to methods of practice. What they want is intelligent, well-educated and honest men who will take care of them when they are sick; and we all lose something by assuming a position in regard to this question which justifies or excuses the community in speaking as though we were trying to increase our own income or to enlarge our own importance. It is a pity that any of us should have so acted and spoken in the past as to warrant the assertion that our societies are nothing but trade unions; and the REPORTER believes that time has come for medical men to agree on some plan for raising the standard of entrance to the grave responsibilities of medical practice in Pennsylvania, so that our fellow-citizens shall be as thoroughly protected against fraud and ignorance as are the citizens of any State in America.

HOW BACTERIA ARE DESTROYED.

With the development of the theory of the bacterial origin of infectious diseases, the question naturally arose as to how recovery takes place and as to the manner in which immunity is conferred. One of the older views was that the disease exhausted the particular tissue or pabulum upon the presence of which its invasion and continuance depended. In accordance with more modern views, it may be held that the micro-organisms to which disease is attributed lose their lives and disappear in various ways. The micro-organisms which gain entrance into the body may die from a deficiency of nourishment, since the normal, living cells and fluids do not furnish a good culture medium.

It has been found that the free fluids of the body exert a directly injurious influence upon micro-organisms, an influence ascribed to the alkaline reaction, to the presence of carbonic acid, and to the albuminates normally present.

Other influences to which importance has been attached in this connection are the retention in the system of products generated by the bacteria themselves, the production of bactericidal matters by the tissues invaded, and the defense set up by the cells in the formation of a wall around the micro-organisms. It is highly probable that phagocytosis, the process by which cells take up and apparently destroy invading bacteria, plays a prominent part in protecting the economy from disease.

In the *Deutsche medicinische Wochenschrift*, July 31, 1890, Dr. Ribbert, of

Bonn, records the results of a study of the occurrence of recovery and of the influences concerned in conferring immunity or protection against disease. As he there states, it is necessary to distinguish between absolute and relative immunity. In case of the first no manifestations of disease appear. In case of the second recovery takes place. Absolute immunity is due to the fact that the bacteria are not able to destroy the structures and thus to provide themselves sustenance, from deficiency of which they die. Not only the cells, but also the circulating albumin in solution possesses inherently, or as a result of previous infection, the faculty of resisting the invasion of bacteria. The resistance to one form of microorganism does not hold good for others, but applies individually to each. Resistance already present may for a time be retained in blood removed from the body. It is the cells, not the soluble constituents, subject to constant changes, which are the active agents and which transmit the acquired property to future generations of cells and circulating albumin. Thus it is the cellular elements which confer immunity.

When relative immunity exists, the bacteria are able to obtain more or less sustenance from the tissues. The greater the resistance of the latter, the more nearly the condition approaches that of absolute insusceptibility. The vegetation of microbes may occasion the production of toxic agents, probably, however, only an increased tissue metamorphosis and associated fever. In this way the fluids of the body become laden with the products of tissue change, which may be considered injurious to the bacteria. As a consequence, the latter die, partly outside of the cells. The increased tissue change is due to the activity of the cells. It is thus conceivable that the destructive influence upon the bacteria is possessed especially by the protoplasm of the cells. In this sense, a varying importance may be attached to phagocytosis. In local affections the colony of leucocytes, besides mechanically obstructing the lymph channels, may also accumulate in the cells the products of locally increased tissue change at the point of infection.

CHOLERA SCARES.

The *Lancet*, August 30, 1890, says in an editorial that it must not be too hard on certain of its daily contemporaries in this dull season, but if they could avoid the subject of cholera it would certainly be well for the community and might not be bad for their own interests. At this season acute gastric and intestinal storms will occur, in spite of, and perhaps largely because of, great atmospheric variations, with the earth temperature about 56° Fahr., that mysterious figure, at which Dr. Ballard has shown such cases may be expected, even in the best regulated communities. But they do not constitute cholera and are not importations from Asia. It adds that the man whose case supplied its contemporaries the week before with material was then convalescent, and another reported case was entirely unrelated to his. It was, in fact, a case of acute gastro-intestinal or dysenteric catarrh, aggravated by errors of diet, in a tuberculous child. These two cases were made to do "scare" duty and scare mischief, and to make many nervous people very unhappy.

Already the REPORTER has noted this scare in London and estimated it at its proper value; and we trust that the comments of the *Lancet* will have some effect upon those lay papers which have added to the popular fear and also upon medical men who may have been too credulous in regard to the reports of cholera cases in this country as well as in Europe.

BLISTERING BY HYPNOTIC SUGGESTION.

In the *Bolnitchnaia Gazeta Botkina*, Nos. 26, 27 and 28, 1890, p. 650, Dr. Jakov V. Rybalkin, house-physician to St. Mary's Hospital in St. Petersburg, communicates a

striking instance of inducing cutaneous blisters by means of hypnotic suggestion, which affords another proof that hypnotism is an agent of an almost miraculous power. The experiment was performed on a highly hysterical, but otherwise strong and well-nourished house-painter, sixteen years old, who could easily be thrown into a deep somnambulistic state simply by closing his eyelids with the fingers. On February 21, at a meeting of medical men attached to the hospital, the patient was hypnotized in the usual way and told that after awakening he was to shiver with cold and to approach a stove in order to warm himself; on doing so, he was to contract a painful and rather severe burn with consequent swelling, redness and blistering about the middle of the inner aspect of his right forearm. The suggestion was repeated thrice; after which the subject was ordered to awake. He immediately obeyed all the commands given, and that most perfectly. On touching the cold stove he suddenly uttered a loud cry caused by the impression of acute pain inflicted by what he supposed was great heat. On inspection of the suggested spot, the doctors discovered a slight pale swelling encircled with a tender congested areola. The patient, with his limb bandaged, in order to prevent the part being touched by himself or any one else, was put in bed in the meeting's room, but could not sleep on account of a sharp cutting pain about the lesion. At 11.30 P. M. the suggested region was found to be considerably swollen, congested and studded with papular erythema, the adjacent zone, four or five centimeters wide, being exceedingly tender to the touch. At 10 A. M. on the next day, there were found two slightly yellowish semi-translucent blisters, one as large as a nut, the other as large as a pea, and, in addition, a crop of minute vesicles, each of the size of a pin's head. On examination eighteen hours after the experiment, all the blisters proved to have coalesced into a single large one. Two hours later, the latter burst and collapsed. On the sixth day, the dried cuticle was accidentally torn away by the patient himself, which exposed a shiny, dry, red scurf adherent to the burnt surface. The latter healed in due course. On another occasion the experiment on the same patient gave the same results.

This is not the first time these blisters have been produced by hypnotic suggestion, but the case is a confirmation of its predecessors and also of curious effects of expectant attention described years ago in essays like those of Hack Tuke on the influence of the mind upon the body. Results quite as remarkable have been produced without the intervention of hypnosis and these as well as those described above must be taken into account in forming a due estimate of many processes apparently of the most mechanical sort.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

THE BIOGRAPHY OF EPHRAIM McDOWELL, M. D., "THE FATHER OF OVARIOTOMY." By his granddaughter, Mary Young Ridenbaugh. Together with articles relating to ovariatomy, and letters from members of the medical profession in Europe and America. 8vo, pp. xvi, 558. For sale by the Author, P. O. Lock Box No. 372, Philadelphia. Price, $5.00.

The medical profession in all countries will welcome the appearance of a biography of Ephraim McDowell. As the man who first did ovariotomy and who opened the way for those who have followed in the field of abdominal surgery, he has become one of the heroes in medicine, and one of the great benefactors of the race. It is meet that we should know the history of such a man. Owing to the fact that his work was done in a State at that time remote from the centres of civilization, and that for many years he had no biographer, his name and the character of his work were for a time in danger of falling into oblivion.

In the present volume we find a full account of his lineage, life, and associations. He was sprung from the sturdy Scotch-Irish race, of a family of force and prominence, and connected by relationship and association with the leading men of his State. When we know that he received his education in the foremost University of the time, and that his life was passed in an environment suited to develop his talents and his self-reliance, it no longer appears singular that he should have had the wisdom and the strength of character to originate ovariotomy. His claim to the title, "the father of ovariotomy," has been fully demonstrated by the late Dr. S. D. Gross, and is given in an interesting manner by the author.

The book includes several interesting monographs

on ovariotomy, and many eulogistic letters and addresses concerning Dr. McDowell. The profession is to be congratulated that due honor has been paid to McDowell and that his claims to distinction—now happily recognized all over the world—have now been recorded in permanent shape.

RAILWAY SURGERY. A practical work on the special department of railway surgery: for railway surgeons and practitioners in the general practice of surgery. By C. B. Stemen, A. M., M. D., LL. D., Professor of Surgery in the Fort Wayne College of Medicine, etc. With numerous illustrations. 8vo, pp. 315. St. Louis: J. H. Chambers & Co., 1890. Price, $3.00.

The enormous development of railways in this country within the last thirty years has brought with it a corresponding multiplication in the accidents peculiar to railway employés. The larger railway companies have therefore come to employ surgeons to look after their own sick and injured. On January 25, 1882, the first meeting of such surgeons was held in Decatur, Ill., and on June 28, 1888, the National Association of Railway Surgeons was formed in Chicago. The author of the present work is the Secretary of the latter Association.

Dr. Stemen states, in his introduction, that over twenty-five thousand surgeons are now engaged in the special work of railway surgery. Such being the case, there would seem to be no doubt that a book specially devoted to railway surgery would find a warm welcome.

The present volume takes up in successive chapters the transportation of injured railway men, their temporary treatment; shock; the use of anæsthetics; lacerated wounds, fractures, amputations; hemorrhage; excision of joints and bones; concussion and compression of the brain; burns and scalds; color blindness; injuries to hands and feet; railway concussion of the spine; transfusion; aneurism; and, in a final chapter, the method of taking care of the sick and injured on foreign railways.

Dr. Stemen prefers ether as an anæsthetic. There is less of his personal experience in the volume, apart from the report of cases, than one would have expected. But he gives on important questions the views of eminent surgeons, such as Agnew, Ashhurst, Gross and Hamilton; and the railway surgeon who consults its pages will find much pertinent advice in the management of his cases.

THE THROAT AND NOSE, AND THEIR DISEASES. With one hundred and twenty illustrations in color, and two hundred and thirty-five engravings, designed and executed by the author. By Lennox Browne, F. R. C. S. E., Senior Surgeon to the Central London Throat and Ear Hospital, etc. Third Edition, Revised and Enlarged. 8vo, pp. xxii, 716. Philadelphia: Lea Brothers & Co., 1890. Price, $6.50.

Browne's *Diseases of the Throat and Nose*, like Fagge's *Practice of Medicine*, represents years of uninterrupted and exceptional experience in hospital and in private practice. It is pre-eminently a clinical work. As the author stated in the preface to his second edition, it is his intention to tell unreservedly everything he has learned, both in consulting-room and hospital-ward, which is likely to be helpful in the diagnosis and treatment of that class of diseases with which his professional life has been almost exclusively occupied. This personal character of the book prevents it from being exhaustive, but makes it more readable, and gives directness and precision to its teaching. It is not to be inferred from what has been said that Mr. Browne states only his own opinions and practice; he gives a summary of the views of other authorities, but by stating clearly when he agrees and when he differs with others, the reader is not left in doubt as to the author's own practice. This method has great advantages, especially for students of medicine.

It will be noticed that the title of the present edition differs from the last; it is now: "The Throat *and Nose and their* Diseases." The reason for this change can be given best in the author's own language. He says: the "opinion is each day becoming more indisputable that in the condition of the nasal fossæ, which constitute the first avenues of the natural breathway, is to be found the key to a right understanding and successful treatment of the majority of faucial, pharyngeal and laryngeal diseases." The part devoted to diseases of the nose has, therefore, been amplified; but the arrangement of the book remains the same.

As regards the tonsils, he adopts the view that it is their function to manufacture leucocytes which act as scavengers for the clearing away of food débris and the holding in check of micro-organisms in the upper respiratory and alimentary tract. The part devoted to their diseases has been expanded.

The illustrations in color, made from drawings by the author, help very much to enrich the volume. They are clearer and more life-like than those usually given. The wood-cuts, however, also from drawings by the author, could be improved upon. As to the general typographical appearance of the book, it will scarcely add to the deserved reputation of the publishers. The type appears to be worn considerably and the press-work is poor. These criticisms, of course, affect only the appearance of the book, which in itself can be recommended most heartily without qualification.

CORRESPONDENCE.

Treatment of Measles.

To the Editor.

Sir: In hunting for an item this morning, I came across your Editorial in number of January 4, 1890, on measles. I had marked it for review; but as the index was inside, and I did not again see it, it passed out of my memory. It seems to me you could not have seen my paper on that subject—in 1872 I think it was—else you could not have written what you did.

I feel that I ought to review it; for in sixty years of active practice, with hosts of children, I have always, from my first case in practice, kept measles patients cool and urged them to drink freely of cold water; and I have never lost a single case under such treatment, while I have seen the greatest suffering, and know of numerous deaths, under the warm treatment.

Yours truly,

Hiram Corson, M. D.

Conshohocken, Pa.

Cholera Infantum.

To the Editor.

Sir: Enclosed please find a formula that I have been using in cholera infantum during the past summer. I have had a number of extreme cases, and in every one it has proved a decided success.

℞ Tr. iodini . . . . . f℥i
Tr. opii camph. . . . . f℥iss
Pulv. gum. acaciæ . . . . . ℥iii
Syr. simp. . . . . q. s. ut ft. f℥vi

In bad cases I order a teaspoonful every two hours, gradually lengthening the interval of dosage, as the discharge is checked, to three, four, five and six hours. I keep up the dosage for a day or two after the little patient recovers. I allow nothing but sterilized milk with a little lime-water, and occasionally beef-tea as food. I do not allow any water to be given to the patient at all; but allow finely-crushed ice to be given often. I place a linen or flannel bandage around the abdomen, and put a soft slip on the patient, allowing also plenty of fresh air. I have the abdominal muscles and extremities bathed with a little whiskey occasionally.

I have not lost a single case since I have used this formula, where the directions have been strictly and carefully carried out. You will probably see my idea for using iodine. I give you this for what it is worth.

Yours truly,
J. A. Timmens, M. D.
Banner City, Kansas.

Questions and Answers.

[In this department will be published questions on any medical subject by readers of the Reporter, and answers by the Editor or by other readers.]

Dr. D. W. C. Laverty, Middletown, Pa., asks.

1. Is the meat from a cow seven or eight months heavy with calf, from a medical or legal view considered healthy or not?

2. Is there any law prohibiting the killing of meat of that kind for food purposes?

3. Has there been any commission or committee appointed by the State or Governor to prevent the sale of adulterated foods, etc.? If so, who are its members and where is it located?

[1. Such meat is not unwholesome in the ordinary sense of the word; but it is not regarded as a desirable article of food.

2. The killing of cattle during pregnancy is not forbidden by law in Pennsylvania; and the sale of the meat of pregnant cattle is not unlawful.

3. No such Commission has been appointed in Pennsylvania.]

Notes and Comments.

Pennsylvania Homœopaths and the Medical Examiners' Bill.

At the last meeting of the Homœopathic Medical Society of Pennsylvania, September 28, 1890, resolutions were adopted setting forth the belief of the Society that it is the duty of the State to foster all medical advancement, and insure the highest and best medical education by direct supervision of all medical colleges within its boundaries, and that all medical examiners' bills are imperfect, however constituted, and fall far short of what is required, in that their most potent function is to limit the practice of medicine and that they touch the subject for which they are ostensibly put forward only secondarily and possibly quite remotely; and that, for these reasons, the Society is opposed to all medical examiners' bills, unless the State should refuse to assume supervision of college work. The Society pronounced in favor of a bill that no one school or system of medical practice shall have a majority of the members upon such a board.

The resolutions instructed the Legislative Committee of the Society to propose a bill covering the following suggestions: A Board of Education, consisting of one old school, one homœopathic and one eclectic physician, and two laymen.

Its duties shall be to fix the standard of education required for admission to any medical college; to examine any one who may not have reached the required standard and to certify as to his or her standing before he or she can be admitted to any college.

To apply the same test of education to graduates from colleges outside the State, and to certify their standing to any medical college within the State, which shall examine the applicant, and, if found worthy, endorse his diploma for registration.

The Board to have supervision over all medical colleges as to their minimum curriculum, length of time and number of courses of lectures, and the faithfulness of instruction imparted, under such penalty as may be provided.

The Legislative Committee was instructed

to present said bill to the Legislature and to use all diligence in securing its passage and enactment as a law of the Commonwealth.

Carbon for Phthisis.

The Vienna correspondent of the *Medical Press*, September 3, 1890, writes that journal that Julius Pick, of Landskron, Bohemia, again brings forward the carbonic therapeutics as a successful remedy for phthisis. This is a form of treatment that was recognized by Traube in 1860, Zenker in 1886 and accepted by Virchow as rational. Since that time many inquiries have followed up the pathological anatomy, with the view of unravelling the anthracosis. It was found that the coal dust penetrated to the lymphatics in the lung tissue as well as the alveolar cells, blood-vessels and bronchial glands, where it lay quietly without doing any harm, but in other cases brought about inflammatory changes from the irritation. Statistics were collected by Hirt, Merkel and others regarding the health of miners, and the effects of coal dust, which was found to be relatively good.

A table by Hirt gives phthisis as 1.3 per cent. These are striking results, and gave rise to much speculation at the time, some attributing the favorable results to the lamp soot, others to the sulphurous gas. The immunity to phthisis of the North Bohemian miners has always been, and is still, a matter of great surprise.

Koburn and Crocq's results given at the Seventh Congress of Hygiene, were not so favorable, unless in mines where a large amount of sulphurous gas was emitted. This led to an examination of another carbon dust worker, the chimney sweep, and 83.6 per cent. were found healthy; among those who had followed the profession for upwards of ten years the result was 93.6 per cent. healthy. Hirt and Merkel confirmed these figures by repeated examination. This might be termed the ancient history of miners' phthisis, but Julius Pick commenced in 1889 to draw our attention to the freedom of phthisis among the North Bohemian miners who are certainly favored with this immunity. Pick commenced his investigations by inquiring if the alimentary canal had no influence in obtaining this result as the dust would be conveyed with the food and drink thither where it would deposit the contained gas and act as an antiseptic conservative, and now asks the question if it be not rational to expect that an organ long kept under the influence of an antiseptic will strongly resist the colonization or development of any infecting germ or tubercular bacillus, and more so when we find the carbon soot of the lamp distributed along the lymphatic tract and interstitial tissue of the lung commonly attacked by the microbe. How to prove the practicability of this treatment by an artificial production of pulmonary anthracosis without running the risk of an inflammatory result was to Pick the first difficulty. To overcome this, he commenced with inhalations of soot in a nascent state by means of a spirit lamp burning rectified oil of turpentine. The flame was covered with a glass funnel into which was arranged wood charcoal, while the patient had a tube from this to the mouth for breathing directly. By this arrangement the soot entered the mouth and lungs as in the mines where part was swallowed and taken into the alimentary canal. In another case he prescribed tablets of lamp smoke containing a centigramme.

Twenty-four hours after ten or fifteen inspirations of this apparatus the sputa was found black, and proved that it had entered deep into the alveoli of the lung. With this apparatus he has administered the fuligo inhalation without the least inconvenience or annoyance to the patient for five or six weeks twice a day. Fuligo is a wide term if not defined. Pick understands this to be the soot from a chimney where wood is burned, but to get quit of all remaining organic remains he subjects the raw material to a kind of roasting process, which might properly be termed *fuligo depurata*, a black light powder having no effect on the tubercular process of the lung, which it does not irritate, and seemingly has no marked utility beyond the theoretical presumption of a disinfectant. This was the result of his first experiment. The next step was to have this fuligo depurata saturated with a gas taken from coal as well as wood which he terms *fuligo empyrheumatica*, which is also easily borne when depurated.

Medical Examiners of North Carolina.

The annual session of the Board of Medical Examiners of North Carolina was held May 24–29, 1890. The Board consists of seven practitioners elected by the State

Medical Society, each of whom conducts the examination of candidates in one of the seven grand divisions of medical science. That this Board is doing effective work in aid of the elevation of the standard of medical education may be inferred from the fact that of a total of 72 candidates at the examination for 1890 only 46 met the requirements and were licensed, and of a total of 398 applicants before this Board for the six years ending with 1890, *one hundred and six* failed to pass. This will prove interesting to undergraduates who slur their college work, and may awaken them to the fact that State supervision of medical education is so rapidly extending that in the very near future only strict compliance with requirements that, in most colleges, are still too easy, will enable them to find a place in the profession.—*Memphis Medical Monthly*, September, 1890.

Resection of the Liver.

The Paris correspondent of the *Lancet*, August 23, 1890, reports that, at a recent meeting of the Academy of Medicine, M. Terrillon recorded the case of a woman, aged fifty-three, who was admitted under his care at the Salpêtrière suffering from a painful and voluminous swelling in the hepatic region. There was a history of four years' duration. An exploratory puncture was made into the swelling, and a few grams of fluid resembling that of hydatid cysts drawn off. As, however, the tumor diminished little or nothing after the puncture, laparotomy was performed on April 1, the abdomen being opened by an incision running parallel with the false ribs of the right side. A portion of the liver about the size of two fists was drawn outside, and was found to be riddled with innumerable small hydatid cysts. Some of them were already empty, but as the tumor had hardly at all diminished in size, and was continuous by means of a broad base with the liver substance, it was resolved to resect it. As, however, a formidable hemorrhage was to be feared, an elastic band was placed round the base of the growth, and thus an artificial pedicle was constituted. The tumor so held by the elastic ligature was in this way separated from the body of the organ and fixed outside the abdominal cavity. Seven days were then allowed to elapse to give time for the usual adhesions to organize and shut out the peritoneal cavity. At the end of this time the now gangrenous swelling was removed, together with the ligature. The floor of the existing wound was of course formed by sphacelated liver tissue, but securely shut off from the peritoneal cavity by the adhesions which formed. Within six weeks the wound had completely cicatrized over, and now the patient, whom long suffering had reduced to a skeleton, was regaining her usual strength and weight, and leading her ordinary life.

Effect of Extirpation of Pancreas and Cœliac Plexus.

The *Therapeutic Gazette*, August, 1890, says:

We have on two previous occasions referred to the results obtained by Dr. Lépine as to the influence of the pancreas on the destruction of sugar in the organism. The drift of his views appears to be substantiated by numerous papers which have recently appeared, which point to the almost invariable production of diabetes mellitus after extirpation of the pancreas. Thus Von Mering (*Zeitschrift für Klinische Medicin*, Band. xvi, Heft 5 and 6) found that after extirpation of the pancreas, a genuine diabetes is produced in dogs, corresponding to the severest form of this disease in man. Grape-sugar was excreted in large amounts, the appetite was abnormally great, polyuria was present, and, in spite of abundant feeding, progressive loss of weight and feebleness were invariably noted. Together with these symptoms, grape-sugar, acetone, aceto-acetic acid and oxybutyric acid were present in the urine, while there was increase of the sugar in the blood and decrease of the glycogen of the various tissues of the body.

Dominicis (*Centralblatt für Klinische Medicin*, June 7, 1890) has likewise produced permanent diabetes after extirpation of the pancreas, and he believes that disturbance of the digestive functions, brought about by the extirpation of the pancreas, leads to an alteration of the tissue-changes, which result in the production of diabetes. This is, however, a mere hypothesis, which the author does not attempt to prove, and which is by no means as probable as the one suggested by Lépine and supported by Von Mering and Minkowski, which points to a specific function of the pancreas by which destruction of sugar is produced. Thus, Von Mering and Minkowski have found that if an animal is made diabetic by

extirpation of the pancreas and fed with a definite quantity of grape-sugar, the whole of the grape-sugar is excreted in the urine, while if but a part of the pancreas be left, no diabetes is produced.

On the other hand, they state that these results are directly due to the removal of the pancreas and the prevention of the exercise of this specific function, and not to injury of adjacent parts, such as the solar plexus; thus Lustig, quoted in the *Medical Chronicle* for July, 1890, succeeded in removing the cœliac plexus from dogs and rabbits, and, although there was in some cases a temporary glycosuria, permanent diabetes was never produced.

This result was also confirmed by Peiper (*Medical Chronicle*, July, 1890). He never noted the production of diabetes insipidus, and only transient glycosuria in certain cases. Peiper's results are, therefore, opposed to the view that diabetes insipidus depends on the functional derangement of the cœliac plexus, and they also show that diabetes mellitus, following extirpation of the pancreas, is not attributable to injury of this plexus.

Numbers at the Berlin Medical Congress.

The *Münchener Med. Wochenschrift*, August 19, 1890, contains some interesting information about the attendance at the recent Berlin Medical Congress, and how it was distributed. The whole number of members at the conclusion of the Congress was 5,737, of participants 143, and of women 1,376. Of the members, Berlin furnished 1,166; Germany (exclusive of Berlin), 1,752; Austria-Hungary, 262; Great Britain and Ireland, 358; Netherlands, 112; Belgium, 62; Luxemburg, 12; France, 179; Switzerland, 67; Italy, 146; Monaco, 1; Spain, 41; Portugal, 5; Sweden, 108; Norway, 57; Denmark, 139; Russia, 429; Turkey, 12; Greece, 75; Roumania, 32; Servia, 2; Bulgaria, 5; United States, 658; Canada, 24; Brazil, 12; Chili, 14; Mexico, 7; the rest of America, 30; Egypt, 8; the rest of Africa, 6; China, 2; Japan, 22; East Indies, 2; Dutch East Indies, 2; Australia, 7. Of participants Germany claims 97, other countries 46. The number of medical women who took part in the Congress was 14.

It will be noticed from these figures that America sent 745 members, and that the United States alone had a larger number of representatives than any other country except Germany.

Urine of Opium Eaters.

A statement has gone the round of the medical press, to some extent, that tincture of the chloride of iron added to the urine of an opium habitué will give a blue tint, are evidence of the presence of morphia.

Dr. Mattison, of Brooklyn, whose experience makes authoritative what he says on the subject, says that this statement is not true.

Remedies for Neuralgia.

Writing to the *Provincial Medical Journal* regarding the use of new synthetic remedies, Dr. T. P. Thomson states that antifebrin is infinitely a more effectual pain-reliever than antipyrin, the dose is small, and it is not very expensive. Three or four grains in a little brandy or whiskey, and then a little water added to this mixture, is the best way to give it. Repeat in four hours if necessary. Dr. Thomson has never witnessed any bad, depressing effect from the employment of antifebrin. In neuralgia of the head it gives sure and speedy relief. In any given case of nerve pain where one might suspect a weak or fatty heart phenacetin is to be preferred to antifebrin, but it does not seem to act quite so surely as the latter. Phenacetin in seven or eight-grain doses every four hours is a safe and effectual remedy in all neuralgias, be they in the head, back, or any other part of the body. Exalgine he has also found useful, and quite corroborates Professor Fraser's statements regarding its efficacy.—*Chemist and Druggist*, September 13, 1890.

Atropamine.

O. Hesse, says, in the *Druggists' Circular*, October, 1890, that "Atropamine" is the name given by him to an alkaloid which he has found in belladonna root, and which it sometimes contains in not inconsiderable quantity. At ordinary temperatures this is a colorless, tolerably firm, glossy mass, but at 60° C. is quite fluid. It is precipitated out of its salts by ammonia, potassi, or soda solution in the form of an oily liquid. It is readily soluble in alcohol, ether and chloro-

form, and its formula is $C_{17}H_{21}NO_3$. It differs from atropine, hyoscyamine and hyoscine in containing one molecule less of water, but it has on the other hand the same composition as pure belladonna, and also a similar form. It differs from the latter, however, in that it forms very fine crystalline haloid salts, by means of which peculiarity it can be separated notably from belladonnine, but also from all the known alkaloids of the atropæ and allied plants.

Cholera.

Surgeon J. H. Tull Walsh gives in the *Indian Medical Gazette*, July, 1890, the results of the use of salol in the treatment of cholera. By studying his statistics it seems clear that a miscellaneous treatment, with stimulants and astringents, gives better results than the salol treatment. There is, however, reason to believe that the cholera was of a milder type in 1889 than during the early part of 1890, which would in some measure account for the difference in the percentage of deaths. He does not attempt to discuss the general question of the treatment of cholera as he is of the opinion that after the algid stage is reached recovery depends in some way on the vitality of the patient and is generally independent of drugs.

Universal and perfect sanitation should, Dr. Walsh thinks, be the only end and aim of those who desire to see the mortality from cholera lessened.

The Rush Hospital.

At a meeting of the Board of Trustees of the Rush Hospital for the Treatment of Consumption, in Philadelphia, held October 6, the following officers were elected: Hon. William N. Ashman, President; Mr. William C. Bullitt, Vice-President; Mr. Joseph de F. Junkin, Secretary; Mr. Nathaniel E. Janney, Treasurer.

Medical Staff—Visiting Physicians: Thos. J. Mays, M. D., Charles W. Dulles, M. D., Lawrence F. Flick, M. D., J. P. Crozer Griffith, M. D.; Laryngologist, Harrison Allen, M. D.; Ophthalmologist, Edward Jackson, M. D.; Otologist, B. Alexander Randall, M. D.; Surgeon, Henry R. Wharton, M. D.; Pathologist, John Guiteras, M. D.

Consulting Physicians— Alfred Stillé, M. D., J. M. DaCosta, M. D., James Tyson, M. D., Roland G. Curtin, M. D.

NEWS.

—Dr. Charles E. Toothaker, a well-known homœopathic physician, died in Philadelphia, October 5, aged 54 years.

—Dr. Wetherill, Secretary of the Pennsylvania State Lunacy Board, has detected three more cases of improper home confinement of lunatics.

—At Wills Hospital, Philadelphia, Dr. Frank Fisher, Dr. S. D. Risley, Dr. Charles A. Oliver and Dr. Edward Jackson have been elected surgeons.

—It was reported from Madrid, October 12, that the cholera epidemic continued at Barcelona; and that a special hospital had been erected there for the sufferers.

—A fine gymnasium, for the use of the patients, was opened with appropriate celebration at the Friends' Asylum for the Insane, Frankford, Philadelphia, October 7, 1890.

—Dr. C. C. Vanderbeck, of San Francisco—and formerly of Philadelphia—has recently returned from a trip to Europe and has opened a sanitarium at 216 Leavenworth street.

—James M. Doherty, the insane lover of Mary Anderson-Navarro, shot and killed the Assistant Superintendent, Dr. Lloyd, of the Kings County Insane Asylum, at Flatbush, N. Y., October 9.

—On September 15, M. Ernest Hardy died in Paris. He was a thorough and trustworthy investigator of chemical and pharmacological questions, and was the first to isolate pilocarpine from jaborandi.

—Last May a druggist of Grenoble, France, substituted naphthalin for β naphthol in a prescription. The substitution was detected, the druggist was prosecuted and convicted and sentenced to a fine of 500 francs and the imprisonment prescribed by law.

—At the meeting of the Philadelphia Baptist Association, October 8, it was resolved to appoint a committee to consult all the churches and by circular ask for their opinion on the subject of the establishment of a Baptist Hospital; also, to receive conditional pledges.

—Among the features which medical men will find of special interest in the November number of *Harper's Magazine* is a poem, "The Quaker Lady," written by Dr. S. Weir Mitchell, and adorned with seventeen quaint illustrations from drawings by Howard Pyle.

MEDICAL AND SURGICAL REPORTER

No. 1756. PHILADELPHIA, OCTOBER 25, 1890. Vol. LXIII.—No. 17.

CLINICAL LECTURE.

RESULT OF THE REMOVAL OF A UTERINE FIBROID.—UMBILICAL HERNIA.—CANCEROUS DEGENERATION OF UTERINE MUCOUS MEMBRANE.[1]

BY E. E. MONTGOMERY, M. D.,

PROFESSOR OF GYNECOLOGY, MEDICO-CHIRURGICAL COLLEGE, OBSTETRICIAN TO THE PHILADELPHIA HOSPITAL.

Result of Removal of Uterine Fibroid.

Gentlemen: I operated upon this woman four weeks ago for uterine fibroid. She gave a history of a fall in 1884, since which she has suffered with menorrhagia, and when admitted to the hospital had an exceedingly offensive discharge. When examined the growth was found to protrude itself through the cervix, so that the latter was dilated to the extent of two and one-half inches. This condition might have been produced by one of two things: a fibroid or an inversion of the uterus. Inversion may result from malignant disease, such as sarcoma, or as the result of labor, where premature traction upon the cord, in an attempt to deliver the placenta in a relaxed uterus, may cause it to turn inside out; or, again, inversion may result from traction of a fibroid situated near the fundus. In the examination of this patient, however, finding that the sound passed an equal distance all round, and that there was no indication of a depression of the fundus, I arrived at the conclusion that I had to deal with a fibroid tumor. Further examination also disclosed that the vitality of the tumor was seriously injured from the pressure to which its base had been subjected in the dilatation of the os, and that it was undergoing decomposition. For a few days prior to the operation she had had an elevation of temperature varying from 101° to 103°, which was undoubtedly caused by systemic absorption of poisonous material from this decomposing mass. The first two days after the operation the temperature continued at 103.2°, since which it has rapidly come down to normal. The patient has recovered without any hemorrhage or any unpleasant symptoms.

There are different methods of procedure in the removal of these masses; such as by the use of the spoon-curette, the wire ecraseur, the galvanic cautery wire, twisting the pedicle or cutting through it with scissors. It is important, in whatever procedure is used, to make certain that the whole of the tumor is removed; as any remaining portion will suffer from want of nutrition, will undergo sphacelus and will endanger the life of the individual from septic conditions. This removal, it seems to me, can be best accomplished, where the base of the tumor is not too large, by twisting its pedicle; for this purpose a strong pair of Volsella forceps is necessary.

Umbilical Hernia.

This patient presents an additional condition of clinical interest which you will observe as I expose the abdomen. You see an enlargement upon the abdominal wall at the umbilicus, which increases with coughing, with straining or when the woman assumes an upright position, and which may be partially obliterated by pressure upon it. This is what is known as an umbilical hernia, and as the mass cannot be entirely obliterated or returned into the abdominal cavity, it is evident that a portion of the omentum or knuckle of intestine has become glued fast to the edges of the opening, forming

[1] Delivered at the Philadelphia Hospital.

what is known as an irreducible hernia. You will ask what can be done for the relief of such a patient? If the hernia were readily reducible, so that the whole of the intestine and the other contents of the hernial cavity could be returned, the patient might be able to live comfortably by wearing a truss. In this patient, however, with a portion of the hernia protruding, the feasibility of wearing such an instrument is impracticable, and the only certain and permanent relief of the condition will be an operation in which the peritoneal cavity shall be opened, the intestinal adhesion separated and the protruded portion returned to the abdominal cavity. The edges of the abdominal wall should be dissected so that the muscle and aponurosis are exposed. These should be brought together by sutures and the patient, for a length of time after her recovery, should wear a bandage to support the abdomen and to relieve it from pressure.

A hernia of this character sometimes becomes strangulated. When this occurs, the proper method of procedure would be to relax the abdominal muscles by the position of the body and limbs, and to exercise judicious taxis with a view to the return of the imprisoned viscus. This may be attempted also under the influence of an anæsthetic, by which the muscular relaxation will still be more effective. Should the measures fail, an operation should be resorted to rather than to continue the exercise of external pressure.

These hernia sometimes attain a very large size. A case of the kind came under my notice some years ago in which the protrusion had been with such force as to tear the peritoneum and permit the intestine to dissect up the superficial fascia. Increased adhesions had to be broken up before the parts could be returned into the abdominal cavity.

Cancerous Degeneration of the Uterus.

This woman is sixty-three years old. Her health has been remarkably good until this trouble, and there is no family history of any malignant disease. She has never been pregnant. For about a year she has had an ichorous, fetid, and sometimes bloody discharge. The uterus is enlarged and the cervix is elongated. The introduction of the sound into the cavity is immediately followed by a discharge of bloody and sanious liquid. It is my purpose this morning to draw down the cervix, and, by the use of the curette, to endeavor to obtain some portions of this tissue which we can subject to the microscope to confirm the suspicion I have of the presence of malignant disease. The age of the patient and the character of the discharge are such as to impress us of the probability of the disease being malignant. In order to determine the condition of the uterine cavity, I dilate the cervix, after which I find the sound passes in a distance between four and five inches. The curette is now used, and, judging from the specimens brought forth, I have no hesitation in saying the disease is one of a malignant character. These masses will be subjected to the microscope, after which we will decide farther as to what shall be done. This case presents opportunities of rather unusual interest. In the first place, the body of the uterus is the part which seems involved. This occurs in only about two per cent. of the cases in which the uterus is the seat of malignant disease. In the second place, the patient gives no history of ever having been pregnant. Malignant disease is rare in women who have not borne children. Now, as to the treatment of this patient; the only plan of treatment which offers even a shadow of a chance of successful removal of the disease would be extirpation of the uterus. You can readily see that the application of strong destructive agents within the cavity of the uterus, where its evacuation or drainage would be attended with considerable difficulty, would be a less desirable method of procedure. I have no hesitancy in going still farther and saying that, in the light of the present developments in regard to the treatment of cancer of the uterus, when the disease is limited to the uterus, whatever portion of it may be involved, the removal of the organ is absolutely indicated.

—Chloral and antipyrin are known to liquify when brought into contact. L. Reuter, in a German journal, reports that, allowing this syrupy liquid to stand several days, colorless and tasteless crystals (presumably "tri-chloraldehyde-phenyl-dimethyl-pyrazolon") will form, which are therapeutically inactive, and devoid of the characteristic properties of the original ingredients.

COMMUNICATIONS.

IMPROVED HYPODERMIC SYRINGE.

BY JOHN. J. THOMAS, M. D.,
YOUNGSTOWN, OHIO.

In the MEDICAL AND SURGICAL REPORTER, September 28, 1889, I described a new method of administering hypodermic injections. Through the courtesy of a reader of the REPORTER, I discovered that as long ago as 1876, Dr. Edgar Holder, of Newark, N. J., devised a syringe upon the same general principle as the one I had supposed to be entirely original with myself. The matter of their manufacture and sale seems never to have been pushed; the extreme simplicity of the device probably proving a bar to its general introduction. As far as can be learned, only one firm of instrument manufacturers made and handled the article. Another year's experience with the simple apparatus, already described in the REPORTER, adds greatly to my satisfaction with it. I have suffered none of the annoyances of a broken syringe, dry plunger or lost washer. The operation of giving a hypodermic injection I can perform with greater quickness and thoroughness than when using the usual form of syringe. The risk of the formation of abscess is much lessened; for the syringe I am about to again describe is as nearly aseptic as can be.

Take the rubber or bulbous portion of an ordinary medicine dropper, using care to select one of some strength and firmness. Insert into its open end the proximate extremity of a hypodermic needle. The fitting is not expected to be close, but can easily be rendered air tight by a few turns of thread or, preferably, a fine rubber band —Faber's No. 10 is strong enough. Now compress the bulb to flatness to expel the air, and dip the needle-point into some water, release the pressure upon the bulb and it fills with water in the space of twenty-five or thirty seconds. Now by pressure discharge the water into a teaspoon, add your tablet, make the solution and draw it up again into the bulb, and you are ready for injecting. Pinch up a fold of the skin in the ordinary manner, thrust in the needle and deliver the injection by firm pressure upon the bulb, holding it transversely to the tips of the fingers. The first filling of the bulb and discharging into a spoon is merely to measure the exact capacity of the bulb and to leave no space for air; though the admixture of a minute quantity of air would not be in the least degree harmful, unless injected into a vein. Practically, no air enters; and an objection upon this ground will speedily disappear under a fair test.

The method which I have now employed for a year and a half is, of course, crude, and the instrument far from as nearly perfect as it is capable of being made. A well-known instrument maker, of Philadelphia, is about to manufacture a syringe upon the principle in question. The bulbs will be of two sizes—fifteen and thirty minims. The idea of a screw fitting between the bulb and needle will be abandoned as unnecessary. The needle will be made with a rounded extremity precisely like the glass tubular portion of the medicine dropper, and over this the open extremity of the bulb will fit tightly. A small glass or porcelain dish or cup will be a part of the outfit of exactly the same capacity as the bulb; so that the solution can be made without any preliminary measuring. The bulbs will be made strongly and of the best quality of rubber. They should fill in ten seconds or less. With the injector carried in my buggy-case I can readily be prepared to give an injection within the short space of two minutes. This includes the fastening of the needle and the twice filling of the bulb. Surely, this is sufficiently speedy, but by the help of the instrument maker the time can be greatly lessened. For my part, even if the instrument manufacturers fail to perfect the idea, I have parted company with the ordinary hypodermic syringe. Mine cost fifty-five cents each and give every satisfaction. Others cost from two to three dollars each and are soon out of order. My experience can be made that of any practitioner who will take an interest in the matter, and who will not allow his own lack of skill in its use to lead him into condemnation of the method.

Nothing can be more satisfactory than the operation of this method of giving injections where whiskey or fluid extract of ergot is to be administered. The determination to inflict upon the readers of the REPORTER this second article upon the subject arose upon the recent occasion of a case of placenta prævia, where the operation of version had just been performed under ether anæsthesia.

The patient could afford no further loss of blood, and I desired instant uterine contraction and expulsion of the placenta. Two injections, of twenty-eight minims each, of fluid extract of ergot were quickly given—a pretty large dose; but my object was attained. The arm was pretty sore for two or three days, but no abscess resulted. The uterus contracted firmly, and the patient ultimately made a good recovery. The pulse ran at the rate of a hundred and twenty for forty-eight hours after delivery, showing that not much more blood could have been spared. As the case approached its termination I reflected upon the probable need of the hypodermic use of ergot or whiskey before the finish, and took comfort in the assurance that my syringe was in good order, notwithstanding the fact that it had not been used for many months.

I have four or five or more of these syringes; one that I keep at my home, in my emergency case, for use when walking short distances at night, one or two in my buggy case, and two in my obstetric bag. In fact, by this method one can own as many syringes as he possesses needles; so little more than the needle being required. Said Dr. John B. Roberts, the well-known Philadelphia surgeon and Professor of Surgery in the Women's Medical College, in a conversation held at Atlantic City last spring: "I have so frequently been annoyed at finding my hypodermic syringe out of condition for immediate use. Your idea gives me the means of giving an injection if I have but a needle and a medicine dropper." The same gentleman gives his unqualified endorsement to all my claims in regard to the practical utility of the instrument, and suggests that it be named the "aseptic" injector.

The objection may be made that twenty-eight drops, the capacity of the average bulb of a medicine dropper, is too large a quantity of fluid for an ordinary injection, and that a smaller quantity of fluid will be absorbed more rapidly. We are not certain that twenty-eight minims will be any slower in being absorbed than five or ten. I have not detected any appreciable difference myself. Still, if this objection be a valid one, it applies only to the unperfected method thus far employed by myself. The bulbs can be made of any capacity, smaller or greater than that of the nipple of a medicine dropper. I propose that each case contain two or three bulbs of different sizes, the needle fitting to either one or another.

Instrument makers with whom I have had correspondence approve of the idea, and make promises of carrying it out, but are slow in doing so. The reason probably lies in the fact that the bulb injector would have to be sold at a much lower price than the ordinary syringe, and that it would be durable and never require repairing. Nevertheless, as above stated, an enterprising manufacturer will soon place them on the market.

Now, to sum up; the following are the claims made for the crude apparatus in use by myself: 1. It is simpler in construction than the ordinary syringe; hence more reliable, as it never gets out of order. There need be no leakage. It works as well after one or two months of non-use as if used daily. 2. Its cheapness; the cost being about one-third that of the usual instrument, when provided with two needles. 3. Its effectiveness; it accomplishes all that any other contrivance designed for the same purpose will accomplish, with the single exception of being used as a means of injecting ether. Contact with the latter soon destroys india rubber. 4. It affords a means of rendering the delivery of a hypodermic injection in an aseptic manner. The bulbs are very easily cleaned and easily kept clean. The likelihood of the occurrence of abscess from anything introduced from without is reduced to a minimum.

Improvement and perfection at the hands of the instrument maker will only emphasize the claim made for the device in question. As for myself, as before stated, I have no further use for the method of giving injections ordinarily employed. The plan above described gives equal and abundant satisfaction to both physician and patient.

CATARRH.[1]

BY ERNEST M. LYON, M. D.,
NEWARK, N. J.

Catarrh in its many relations, is a disease so frequently calling for the consideration of every physician, and, one upon the successful treatment of which so much often depends, that a few words bearing upon the matter may not be out of place, especially in view of our experience of the past winter. Broadly considered catarrh may be defined as a diseased condition whose prominent char-

[1] Read before the Practitioners' Club.

acteristic is a discharge or flow from a mucous surface, and for purposes of classification, it may be divided into two great divisions: acute and chronic. Acute catarrh may be further divided into specific and non-specific.

The object of this paper is to draw your attention to the importance of considering catarrh, not simply in the light of a symptom, as is often done, but more as an essential fever, and of treating it as such.

The conditions necessary for the production of a catarrh are first, a mucous membrane; second, some irritating substance or sudden change of temperature; and, third, as a resultant of these or of similar causes, the presence in and around the muciparous follicles of an excess of blood stimulating them to secretion. The gravity of the case depends upon the initial force of the irritation, the situation of the congested part and the success of the means employed to relieve it.

The pathological changes occurring in a case of acute catarrh are interesting. First the congestion, which, if it be severe, distends the capillary circulation to an enormous extent; the contiguous parts are engorged with blood; the circulation through the affected part becomes slower, and, in proportion to the looseness of the tissues, the tumefaction greater. Then Nature attempts to cure this condition by instituting the characteristic flow of mucus with the view of depleting the blood-vessels; this may prove successful, and if so, there is a spontaneous recovery as in a common cold, but if not successful, the congestion goes on accompanied by more or less of fever, until there supervenes a condition of vaso-motor paralysis, the capillaries remaining full, the mucous membrane puffy and sodden and covered with a constant coating of mucus from the relaxed follicles. The disease is then said to have become chronic.

The clinical history of catarrh varies considerably with the location of the attack. When confined to the throat and nose, there is usually frontal headache, suffusion of the conjunctiva, difficulty in breathing through the nose, sneezing and a sense of suffocation, combined with general malaise and some fever. As the disease progresses downwards, the constitutional disturbance becomes more marked, and the symptoms of a corresponding gravity; and if the lungs are reached we may have a profound disarrangement of the physiological functions and often death. It is here in the lungs that catarrh most often gives an exhibition of its possibilities when the inflammation involves a large surface. The lungs, with their innumerable small tubes lined with a continuous mucous membrane, offer a field in which the disease may display its powers upon a grand scale. The fever increases in intensity; cough becomes a prominent and distressing symptom; respiration becomes difficult and accompanied by a sense of oppression. These symptoms subside after a time, either spontaneously or as the result of proper treatment, and are followed by expectoration of mucus and muco-pus; and the attack is over, to result either in complete recovery or in the chronic form of the disease. A severer form is where the inflammatory products so occlude the smaller bronchioles, that, while the exit of air contained in the air-cells is permitted, ingress of fresh air is not. This results in collapse of the cells with inflammatory adhesion, prolonging the case indefinitely and often, especially in children, deciding the balance between life and death.

Gastro-intestinal catarrh may be either general or local, and the symptoms will vary accordingly. It may be general in the sense of involving the whole digestive tract, from the stomach to the anus—as, for instance, in sporadic cholera; or it may be local, as involving some one part as the stomach or cæcum. In the class of general gastro-intestinal catarrh I am inclined to catalogue, not only such diseases as sporadic cholera, but also remittent and typhoid fevers; and, while ascribing the two latter to specific causes I still entertain the opinion that they are both essentially catarrhal diseases. The past winter with its epidemic of catarrhal fever has been the means of convincing many practitioners of the constant presence in the atmosphere of a morbific principle that only needs favorable conditions of temperature, moisture, etc., to manifest itself in an epidemic. The whole history of this disease goes to show that it has recurred at various periods from time immemorial whenever the conditions were favorable, and that it is capable of attacking any or all parts of the body either at once or seriatim. Such a history as this can belong only to a disease having some special microbe or other analogous means of propagation; and the time may come when all catarrhs outside of those due to the action of cold or local irritants, can be traced to the special poison of this disease.

Gastric catarrh, when occurring in the adult, most often comes under the physician's notice in the chronic form, and is usually the result of repeated attacks of acute or especially subacute, gastritis, commonly recognized as dyspepsia by the laity; and it forms one of the most intractable of all diseases to permanently cure, owing to the fact that the physician has the patient's bad habits of eating and drinking to contend with. The acute form is usually the result of the ingestion of indigestible or irritating substances, or of excess in the use of alcoholics, and may prove dangerous to life. The nervous condition known as delirium tremens is nearly always preceded by acute gastric catarrh, which in its turn makes a profound impression upon the sympathetic nervous system. At all events, there is no better way to treat this condition than to direct a part of one's efforts towards reducing the gastric irritation.

Gastric catarrh occurring in infantile life is one of the most common of all affections and also one of the most troublesome. It occurs mainly in bottle-fed infants, and is the cause of much ill health and imperfect nutrition. Children affected with it vomit a large part of their food, and experience a great deal of pain, which causes wakefulness and interferes greatly with sleep. The excessive secretion of mucus interferes with the proper contact of the food with the coats of the stomach (without which there can be no perfect secretion from the peptic glands), and also renders the contents of the stomach more prone to fermentation and decomposition, thus filling the stomach with gas, to the great distress of the infant. When acute gastric catarrh is associated with the same condition in the intestines—as it sometimes is in the adult, and very frequently is in young children—it becomes a serious matter for the patient, and calls for our best efforts, especially when it invades the rectum as in dysentery, or when the vermiform appendix is involved.

Acute catarrh of the genito-urinary tract may be best considered by division into specific and non-specific, of which the former is by far the most frequent and troublesome. Non-specific catarrh in this locality is usually due to the presence of some foreign substance, either in the kidneys, the bladder, the uterus or the urethra, such as gravel, calculus, pessaries or sounds; and it is generally relieved by removal of the irritating substance. Specific catarrh, on the contrary, is due to introduction of the poisonous virus of syphilis, gonorrhœa or chancroid; and their effects may be felt not only locally, but also in parts remote from the seat of the original inflammation. The injudicious handling of a chancroidal ulcer, and the subsequent introduction of the finger into the eye or mouth, has been the means of dimming the lustre of many a bright eye, and of carrying contagion to innocent people. This is also true of gonorrhœa. How many women there are who are barren because of the introduction of gonorrhœal virus into the vagina, that has worked its way upward into the womb, with the result of setting up there an inflammatory catarrh, contact with which would kill the average spermatozoön in short order. This devastating effect of gonorrhœal poison, is also true of the bladder in both sexes; and the inflammation may even reach the uterus, through them the kidneys, while from the uterus it may penetrate to the ovaries through the Fallopian tubes. The chronic diseases of the genito-urinary apparatus are the most intractable and their treatment is hopeless in a large class of cases, particularly those of the uterus and bladder.

Catarrh of the eye and ear will not be discussed in this paper, that being left for some of our specialists.

The list of catarrhal affections fills a large place in the catalogue of diseases calling for the attention of the average physician, and their treatment varies with their location, intensity and cause. Clinically considered, acute catarrh calls for treatment as a disease, and chronic catarrh as a diseased condition. The prime factors in the treatment of catarrh, wherever found and due to whatever cause, are: First, to remove the cause at once if possible. This can be done if it be local, by removal of calculi, pessaries, etc. Second, as soon as possible after the attack has begun we should endeavor to limit the amount of blood in the affected part and give it physiological rest. Third, we must restore the tone of the mucous membrane. In this we can learn a great deal from Nature, who endeavors to cure the disease by institution of the catarrhal flux; and this should serve as a hint for us to do likewise. Acute catarrh of the bronchial mucous membrane, if sufficiently severe to cause much fever, calls for prompt measures of relief. The first and best thing to do, is to produce profuse diaphoresis; and to this end we should use warm or hot foot baths, and give hot drinks containing a

small amount of alcohol, and one of the new antipyretics, of which I prefer antifebrin. After using successively the prominent members of this family of drugs, and especially antifebrin, of which I have administered, since January 1, some thousands of grains, it has proven in my experience the safest and most useful, being devoid of all danger if used with any sort of moderation. The diaphoresis produced by its use is prompt, the fever is always lowered, and often the patient goes quietly to sleep. After the sweat, a large warm poultice of flaxseed and camphor, with mustard mixed into it, should envelop the chest, both back and front if necessary, and this should be covered with oiled silk. An anodyne, such as Dover's powder, should be given; and in nine cases out of ten the disease will be so modified that its succeeding history will not be at all severe, provided we have been called early enough. There has been a great deal said in relation to the use of poultices. Provided they are properly made and applied, they are among the most valuable of the means at our command to relieve this disease and cannot be approached for effectiveness by cotton batting, so much in favor by our homœopathic brethren.

Among drugs, the iodide of potassium stands at the head. It should be given in full doses and as frequently as the stomach will bear it, and it may be given to saturation without danger. This drug possesses the power to promote in some way the flow of mucus, probably by stimulation of the glandular substance; and its use should be continued as long as the fever lasts and a day or two longer, when it should be succeeded by the muriate of ammonia and cod-liver oil for another period. If, in spite of our efforts, the disease becomes chronic, the treatment should become astringent and stimulating; and for this purpose the balsamic remedies are useful, especially eucalyptus and chequen, together with quinine and strychnine.

Gastro-intestinal catarrh should be treated upon the same general principles as the foregoing. When we are called to a patient whose symptoms point to the digestive tract as the seat of disease, it is good practice in almost all cases to empty the stomach and bowels with a purge as soon as possible; and, provided it can be taken, that much-maligned old-fashioned remedy, castor-oil, answers the purpose better than any other. It seems to work better than any other cathartic in intestinal catarrh, almost a specific, in fact. The next important consideration is diet; and the best diet in many cases, for some hours at least, is nothing at all. Give the stomach and bowels as nearly physiological rest as possible—a sort of masterly inactivity as it were. This gives the liver an opportunity to exercise its depurative functions and to rid itself of all superfluous blood—a very important consideration at times, and there is often great disturbance of the biliary function due to catarrh of the duodenum and ductus communis: a condition which favors resorption of bile and consequent jaundice. It is exactly this condition of things that precedes continued fever; and, in my opinion, these same fevers are essentially catarrhal and depend for their continuance upon a prolongation of the original catarrhal inflammation of the intestinal mucous membrane in just the same manner that bronchial catarrh is sometimes prolonged by extension. Should the fever become continuous, the use of quinine is indicated, and it should be given freely throughout the attack and continued into convalescence, occasionally giving it to cinchonism, say once in three or four days, to guard against malarial complications. The use of antipyretics is indicated here, and they should be given whenever the temperature rises to or above 103°, and preferably at night, and they should be continued in decreasing doses until the fever subsides and becomes extinct for twenty-four hours. An important point is the diet; this should be always fluid and should consist of milk, barley gruel, etc. Considerable alcohol, in combination with food, may be taken with benefit. The subnitrate of bismuth, given in fifteen to twenty-grain doses every two hours, is a valuable drug, and may be used with benefit and without danger for long periods. Should the bowels become sensitive, warm poultices, covered with oiled silk, are useful and at times exert a favorable influence upon the fever. This was the case with my own boy and with many others. Enough morphine should be given to allay pain and sleeplessness and to restrain too frequent stools. Should the opposite condition, of constipation, prevail, large enemata of plain warm water are often of extraordinary benefit. Sometimes they are retained for hours without discomfort, to be followed by a natural stool, very rarely, however, of as large a quantity as the injection, part of the water being absorbed.

These patients are benefited by large enemata daily as a part of the treatment. In the declining stage of the disease mineral acids, pepsin and port wine are indicated.

Genito-urinary catarrh is so often the result of venereal causes that its treatment demands a separate paper and will not be discussed here.

SIX SUCCESSFUL OPERATIONS FOR BILIARY CALCULI.

BY B. CURTIS MILLER, M. D.,

LEXINGTON, KY.

Case 1. Mrs. S. A. W.; 44 years old; married, and the mother of seven children; was six weeks pregnant at the time of this operation, after which she went to full term and was delivered of a healthy male child. I was called to see her by my friend Dr. R. S. Henry, of Charleston, W. Va. She was a large, muscular woman, weighing probably 160 pounds, and while she was a little sallow in the face she did not present the appearance of a person suffering from any organic disease of a serious nature. The symptoms, as complained of most and described by the patient, were pain and soreness at various times in the region of the liver and stomach. About once every two weeks this pain was more severe and extended into the hypochondriac region and around to the back in the region of the right kidney. The pain at times was very severe under the right scapula; afterwards it was followed by a rigor and accompanied by excessive vomiting and extensive constitutional disturbance. These paroxysms usually lasted from one to two hours. The woman stated that her appetite had been impaired only during the past two months. She was generally constipated, and her feces were light in color. These symptoms had developed about one year previous to the examination, and had been treated by a number of physicians without obtaining any benefit from the administration of medicines. The abdominal walls were very thick and the muscles quite rigid; and no action from the bowels had taken place during the past three or four days. This condition of the patient prevented a satisfactory examination of the abdominal contents; but I was enabled to make out an oval abnormal growth occupying the right hypochondriac region. It had a slight movement from side to side and was quite tender to the touch. The tumor seemed to be about the size of the two fists. The patient was advised to return home (with the promise that we would see her in a few days) with instructions to take an active purgative the day previous to our arrival. At this stage of our examination we thought it a case of sarcoma of the kidney.

On our arrival at her house, her condition being more favorable for an examination, as a result of the thorough evacuation of the bowel by the action of the salts administered as we had advised, we could now make out very distinctly a distended gall-bladder, which could be readily moved in any direction excepting downwards. The line of enlargement was in a diagonal course from the normal situation of the gall-bladder towards the umbilicus. Dulness existed over the entire growth. The shape was that of a pear.

The abdomen was opened December 5, 1887, with the assistance of Drs. Henry and Mitchel, and a gall-bladder containing 204 stones and one and one-half pints of pus was found. All of them were removed through the two-inch incision in the gall-bladder and abdominal walls. The edges of the gall-bladder were now carefully stitched with continuous sutures to the edges of the parietal wound. In this way the gall-bladder was securely fastened to the abdominal opening, thus preventing the bile from entering the abdominal cavity. I next placed four stitches in the parietal wound, in order to close it around the drainage-tube, which was introduced into the gall-bladder at the lower portion of the incision. This tube was of soft rubber, and remained in the wound for a period of ten days, at which time it was removed and the opening was closed by granulation in a few days. The four stitches which were placed last were removed about five days in advance of the drainage-tube. The dressing consisted only of absorbent cotton, held in place by two or three adhesive strips.

The patient bore the operation well and I left in a few minutes after the dressing was applied, and did not see her for six months, at which time she was enjoying excellent health. I was informed by Dr. Mitchel, her family physician, that her temperature did not rise above 100° during the whole time of her convalescence. This case was included in my year's report of 1889, in which I re-

ported seventy-five cases of abdominal section without a death. (See *American Journal of Obstetrics and Disease of Women and Children*, Vol. 22, No. 7, 1889. Case 66.) This is one of six cases in which I have operated for stone in the gall-bladder and the results in all of the others have been as favorable as here above described.

The remaining five cases may be briefly described as follows:

Case 2. Mrs. W. W. L., 42 years old, applied to me July 4, 1888, complaining of pain in the region of the liver. She was considerably jaundiced, and anemic to a marked degree. The pain in the right hypochondriac was paroxysmal, occurring every three or four days, and continuing for ten or twelve hours. Operation July 7, 1888, and convalescence in three weeks. The calculus in this case was single and weighed 240 grains. My assistants in this case were Drs. S. F. Thomas and E. W. Clarke, of Charleston, W. Va.

Case 3. Mrs. A. M., 28 years old. Operation February 1, 1889. She complained of severe pain in the region of the liver, and was greatly reduced in flesh. Recovery was complete after operation and the patient regained her usual flesh. My assistant in this case was Dr. F. L. Harrison, of Cleveland, Ohio. The contents of the gall-bladder consisted of 240 small calculi and about eight ounces of pus.

Case 4. Mrs. H. L. R. had been in poor health for several years, but did not suffer much pain until one year previous to the operation, since which time she has had a severe gnawing pain in the region of the liver radiating up to the right shoulder, and followed by excessive vomiting and prostration. This operation was performed April 16, 1888, assisted by Dr. Hamilton, of Baltimore, Md. One interesting point in this case was the fact that the gall-bladder had become very firmly adherent to the abdominal wall, and I allowed the adhesions to remain intact after cutting through the parietal walls, and did not think it necessary to put any suture in, as in former cases. The external wound was simply brought together with three or four stitches, after inserting a drainage-tube. The contents of gall-bladder consisted of three stones weighing in the aggregate one and three-quarter ounces. One stone was quite firmly imbedded in the walls of the gall-bladder, and forcible removal of it caused considerable hemorrhage which continued for several days and was only checked by means of injections of a solution of tannic acid into the bladder.

On the third day after the operation the patient's temperature rose to 104°. This was soon brought down to 100° by the administration of two or three five-grain doses of antifebrin. The stitches were removed on the tenth day, and the drainage-tube on the fifteenth day after the operation; but the discharge continued for two months, when the wound finally closed, and the patient has gained flesh and is entirely free from pain.

Case 5. Mrs. A. N. T. suffered with cramping pains in the epigastric region, and after taking a cathartic passed three small stones by the rectum. Operation May 23, 1889, assisted by Dr. E. Porter, of Columbus, Ohio. The contents of the gall-bladder consisted of 160 small calculi, which were removed and the patient made an uninterrupted recovery.

Case 6. Mrs. J. M. R., 27 years old, had been suffering for two years with pain in the stomach and region of the liver. This pain had gradually increased until it became almost unbearable, and hence she sought relief from an operation. The temperature of the patient was 100½° for several days previous to the operation, which was performed July 4, 1889, assisted by Drs. H. D. Arnold and A. F. Piper. The stones in this case were 370 in number, quite small in size, and all crowded in the gall-bladder. After removing this, I explored the ducts very carefully from the outside, and discovered in them three good-sized calculi, which I had to crush with forceps before I could dislodge them. The sac being considerably larger than the external opening, I carefully cut away a small portion of it before stitching it to the abdominal walls, as in the other cases. The temperature did not rise above 100°, and the patient made a rapid recovery.

AGUE CURED WITH NITRATE OF POTASH.

BY J. B. JOHNSON, M. D.,
WASHINGTON, D. C.

Two weeks ago I was called to see Mr. K., a delicate man, forty-four years old, who had been suffering for the last week with the quotidian form of intermittent fever. He informed me that his chill was

so severe, and had shaken him so violently that it caused the window-sash to rattle as if in a storm. His tongue was coated, and his bowels were constipated. I commenced my treatment of his case by giving him a mercurial purge of five grains of calomel, with ten grains of blue mass, to be taken at once, and to be followed in three hours by a dose of three grains of sulphate of quinine; the latter to be continued in three-grain doses, every three hours, until thirty grains had been taken. I saw him again, the second day after my first visit, and to my disappointment found the quinine had not stopped his chills. I then decided to try the effect of nitrate of potash in his case, and prescribed the following:

℞ Potasii nitratis . . . . . ℥iij
Aquæ destillatæ . . . . . f℥iv
Syrupi simplicis . . . . . f℥ij

M. Sig. Shake well and take a tablespoonful every three hours.

In two days I called to see the man and was gratified to find that the mixture had stopped his ague on the second day. Finding him somewhat anemic, I prescribed the following:

℞ Cupri arsenit (tablet triturate) . . gr. $\frac{1}{100}$
Aquæ destillatæ . . . . . f℥ij

M. Sig. Shake well. Dose, a tablespoonful every three hours.

The eighth day after my first visit I found him entirely free from the ague, and directed him to have his bottle of arsenite of copper refilled and to continue its use for several days.

Reports of Clinics.

N. Y. POST-GRADUATE MEDICAL SCHOOL.

CLINIC FOR DISEASES OF CHILDREN—PROF. JOHN H. RIPLEY.

Sub-acute Rheumatism.

Dr. Ripley first presented the following case: A little girl, five years old, who began to be ill five days before, complaining of pains in the neck and headache. The next day her neck was stiff, and she said her hands and feet hurt her. That night she was restless and did not sleep well. Yesterday she grew very lame, so that she did not care to walk across the floor. She lost appetite and towards evening had fever, and her joints grew stiffer. Her mother said that in last Septemper the child had an attack similar to this, which was confined to one arm and lasted only two days. The three other children had had no such symptoms, nor was there any family history of rheumatism. The child does not live in a damp place, nor on the ground floor, and there has been no exposure. Examination showed both shoulders tender to pressure; also tenderness along the sides of the neck. The right wrist was somewhat swollen and tender. The child's chest was rachitic. The heart showed no abnormalities. The knees were not swollen, and the child said they were not painful; but the mother volunteered the information that they do pain her, because the little girl stoops peculiarly. An article was thrown upon the floor and the child was told to pick it up. She was seen to reach for it in that stiff, awkward manner which creates a suspicion of spine disease. This symptom warrants investigation.

Inspection showed that the spine was straight, excepting a very slight lateral curvature. There was no angular projection of any of the vertebræ.

Dr. Ripley asked how the presence or absence of Pott's disease might be positively determined. Such symptoms, he said, as pain on pressure, pain on movement, on the suspension of the child by the head, the deformity, etc., were not altogether diagnostic. But there was one method worth all the rest. The patient is laid on his belly, the feet are seized with one hand, and making counter-pressure with the other hand against the spinal column above the seat of the curvature the body is carefully bowed backward, thereby obliterating the curvature if the case be not one of spondylitis, or causing pain and proving the impossibility of straightening the spine if the case be true Pott's disease. Of course in many instances the diagnosis of this condition is comparatively easy, but there occur cases in which it is a difficult matter to say whether the patient has or has not disease of the spine; and it is in these doubtful cases that he has come to learn the value of the preceding test. Many years ago he was visiting the wards of a certain N. Y. hospital, in company with a prominent physician of this city, where was shown a case that had been diagnosticated as Pott's disease, and had been exhibited as such during the several months' sojourn of the little patient in the hospital.

It occurred to the doctor to apply the test above mentioned, when, to the surprise of every one, the spine was completely straightened. The incident taught a lesson to those present, and Dr. Ripley trusted that its recital would help to impress this test and its importance upon the minds of the students.

In the patient before the class the manner of stooping would also direct attention to hip-disease. The child still lying upon the face, it was noted that there was no difference in the length of the limbs; that the lines of the gluteal folds were about even; and that striking against the soles of the feet did not cause pain. In doubtful cases, where these signs are not plainly manifest, it is known that seizing the leg and bringing it into abduction will cause pain because this motion crowds the head of the femur into the acetabulum. This is a test that Dr. Ripley has always found very reliable. The present patient complains of no pain from this manœuver. The case, then, is one of sub-acute rheumatism, in large part muscular.

Dr. Ripley ordered the following treatment, expecting the child to be well in a few days:

℞ Acidi cresotinici . . . . . ℥i
Sodii bicarbonatis . . . . . ʒii
Aquæ menthæ pipentæ . . . . . f℥iiss
M. Sig. A teaspoonful every three hours.

Congenital Syphilis.

The next patient was a colored boy, twenty-one months old, who, when undressed, showed great emaciation, flattening of the chest and large abdomen. His respiration was chiefly abdominal. The child kept up a continuous crying, and every time he was touched would shrink away and cry louder as if in pain. The mother brought him to the clinic believing he had spine disease, for she had noticed a "lump" on his spine. As the child was laid upon his face a marked prominence was noticed over the lower dorsal and lumbar vertebræ; not sufficiently angular to be characteristic of Pott's disease. But this might be due to the fact that many vertebræ were involved. Seizing the feet and bowing the spine backwards did not produce any pain, and furthermore it entirely obliterated the curvature; making it clear, as well, that no adventitious tissue caused the deformity, but that it lay in the misdirection of the spinal column. Dr. Ripley said that it might be at once concluded that the child had not Pott's disease but that the apparent curvature was due to rachitis. Further evidence of this disease was found in the shape of the chest and of the head, and in the muscular weakness and emaciation, as also in the retarded dentition (for the mother said that the child did not get his first tooth until after he was one year old). The only cause of delayed dentition is rachitis. This child had been fed on breast milk, which, as far as could be learned, had been plenty and of good quality. The child had also of late been taking other foods which he had eaten with good appetite and had apparently digested. It was possible, therefore, to exclude unsuitable feeding as the cause of the rachitis, and attention would naturally be directed to the next most prominent cause of this disease, namely, syphilis.

The evidences of syphilis in a child of this age would be, first and foremost, glandular enlargements. There might also be a history of snuffles, skin eruption, mucous patches, notched teeth, etc. In this patient both epitrochlear glands were found to be as large as peas; the post-cervical and inguinal glands were also enlarged, and on the body and thighs were the stains of an old eruption. These signs are sufficiently characteristic to make a positive diagnosis of congenital syphilis.

The treatment recommended was: Hydrarg. chloridi mitis grain $\frac{1}{20}$, three times a day, at first; and later cod-liver oil; with perhaps a change in the administration of the mercury to inunction if there was no improvement under its administration by the mouth. Fresh air was a very necessary hygienic resource in these cases.

Foreign Correspondence.

LETTER FROM INDIA.

Medical Practice in Bombay.—Private Dispensaries.—Charges for Consultations.—Consultations.—Crowding in the Profession.

Having finished his studies, a medical graduate of Bombay University opens a dispensary. The very idea of a medical man opening, keeping, and conducting a dispensary is repulsive to every sentiment of medical dignity and ethics. This is the ever-stand-

ing reproach to the medical profession in Bombay. How, and by whose ill-advice the medical graduates first began to keep dispensaries with them, is hard to conceive; but that it is a medical degradation is not at all to be denied. Nowhere in America we find a practitioner conducting his own dispensary. Now, as for the condition of such dispensaries: they are kept in the veranda of the house. They are ill-lighted, and as a consequence, they are gloomy and repulsive. Generally directly behind them are the privies. Every now and then they are kept in mere dark snugs, so small that two men cannot freely pass abreast. As a rule these dispensaries are very dirty and disorderly. The practitioners have no idea of neat and orderly arrangements of bottles and other appliances of a dispensary. Stranger to the idea that he should not keep a dispensary, he is yet a greater stranger to that of arranging his dispensary in a neat and elegant style. One would see in these dispensaries some two or three cupboards with lot of dirt and dust, and some dirty, filthy medical bottles in them, scattered here and there without any aim or end in view. There are one or two school-benches for patients to sit on, but without any back for them to lean on. On one side there is an ordinary side-board, where the compounder of the practitioner fills up the bottle according to the prescription written in the dispensary by the practitioner. These compounders are ignorant of English, or the only English that they know is to read the names of medicines in the prescription, and on the bottle labels. The table on which they dispense medicine is soiled by spattering of water, droppings of medicines, and making up of ointments.

The dispensaries are utter strangers to neatness and cleanliness. Everywhere disorder and filth reign supreme. Towards evening, these dispensaries are the seats of gossiping for loungers in the shape of friends or patients of the practitioners. In the morning when there are some patients gathered together, the practitioners prescribe, and charge nothing for the advice to, or examination of patients; but they are satisfied with the collection of twelve cents for three ounces of mixture to patients. Their visiting fee is seventy cents; they are never bold enough to undertake any surgical operation, or risky obstetric duty. Such cases they refer to hospitals, if the patient is poor, or call out the military professors of the college to conduct the case if the patient is rich enough to pay; thus losing excellent opportunities of becoming experts in some select specialities, and so remaining mere prescribers all their life long. Even in their consultation, they would never call out their senior medical brethren but the military surgeons of the hospitals; so jealous are they of one another. During their leisure hours, they would never think of writing articles either in the vernacular or English on medical, surgical, or on any other branch in which they feel themselves strong and sure. They never aspire to acquire name and fame in this way. They have no stock of well-selected medical authors, that may be called their library. They do not seriously study out one or the other of so many branches from the fertile field of medicine.

There are in Bombay no medical associations, or those that exist are not much to speak about. The profession is entirely over-crowded. On Chundunwady main road you may see medical signs at an average of perhaps every ten houses. On account of such a large number of practitioners, and but a limited intelligent public to patronize them, the competition was at first very keen; then it got over keen, and now it is degrading, when instances are fast multiplying of practitioners paying three and four visits charging a fee for the first one only. This is specially the case with beginners, as they want to set up in direct competition with those already established, and to draw away as many patients from others as they can.

Many young practitioners of Bombay are full of conceit and vanity. They think they know everything, and that others do not know anything. They belittle their senior medical brethren and would not take them in consultation; but they would think too much of their late military professors, howsoever young and inexperienced these latter may be. No doubt some of the practitioners are in a very well-off position; but they are the oldest of the graduates, both of the College and of the University, and they are very few and far between. The bulk of them are yet in a precarious state; some, perchance may yet rise to eminence, the others may remain behind just where they are now.

The status of the profession is not so gloriously high in Bombay as it is in Europe and America. To elevate its status is to elevate that of its members, and the only means consists in their adopting a proper code of medical ethics and acting up to its very

letter and spirit by each and every practitioner of Bombay.

D. D. Bode, M. D., D. D. S.

PERISCOPE.

Classification and Treatment of Tumors of the Bladder.

In his recent address before the International Medical Congress, at Berlin, Sir Henry Thompson gave the following classification and description of tumors of the bladder.

1. The mucous polypus—which is not to be confounded with prostatic outgrowths of similar form, these being inadmissible in any scheme comprising vesical tumors—resembles polypi of the nasal cavity, but is more compact and solid in structure. Hitherto, this product has been found in young children only.

2. Papilloma. The papillomatous growths appear in two forms, the essential character being that the structure of the characteristic portion always resembles that of the natural papillæ occurring in certain parts of the digestive canal. The constituent element consists of a prominent fold of simple membrane, supported by connective tissue containing a large arterial twig as a central axis, while the outer surface of the membrane is closely covered by a layer of cylindrical epithelium, or, much less commonly, by the ovate or spherical variety. Formerly these growths were called "villous," to which it was usual to add the term "cancer," although the implied allegation was entirely unwarranted by evidence. When these prolongations are very long, slender, and floating in the bladder, the papillomatous growth is termed "fimbriated." When a considerable portion of fibrous tissue is present, rendering the growth more solid, the designation "fibro-papilloma" is more appropriate. These growths form very slowly at first, but when developed give rise to repeated attacks of hemorrhage, which in time become continuous and copious, thus terminating life. They are the most commonly met with of all vesical growths, and their symptoms have been often mistaken for those of renal disease. Microscopic examination of the urine will sooner or later (especially if the bladder is washed out with water and the débris scrutinized) detect specimens of the growth, which are quite characteristic, and absolutely decisive that the growth is present. Moreover, on careful inquiry, it may be ascertained that the bleeding is found occasionally, sometimes frequently, to appear in a manner which can rarely or never be met with in renal hemorrhages. The patient commences an act of micturition with clear or almost bloodless urine, and at the end of the act bright florid blood is mixed with the stream, or appears alone at the close. This fact determined, the bleeding is without doubt vesical, and if for a considerable period of time there is still but little pain experienced, and the act of micturition is as a rule not very frequent, the bleeding is certainly not due to a sarcomatous or carcinomatous growth, and is therefore very probably significant of papilloma.

Sir Henry said that he knew no styptics which appeared to control the hemorrhage from this source, although he had seen all the known remedies abundantly tried. Treatment by local injections is apt to provoke rather than check the flow of blood.

3. The simple myomatous tumors are not very uncommon; they are not accompanied by any characteristic signs of their presence, but have sometimes papillomatous growth on their surface. Nothing further remains to be said here in relation to diagnosis, except that their progress is slow and the characters of malignant growth are absent.

4. Tumors made up of fibrous tissue chiefly, more or less associated with small nuclei interspersed. Sometimes these are in large quantity, a fact which leads to a graver estimate of their character, as indicating that they probably possess a tendency to return after removal. Both these and the preceding kind involve the deep structures of the bladder, and cannot be entirely separated by any operative procedure; while, on the other hand, many examples of papilloma, especially when growing from a pedicle, may be completely removed, and often do not return.

5. Epithelioma, the nature and character of which in the bladder are those of this growth in all other parts of the body.

6. Scirrhus, or "cancer" properly so called, not occurring until after the middle term of life has been reached, is occasionally met with in the bladder.

7. The round and spindle-celled sarcomata, formerly known as "encephaloid," are sometimes met with in children, but affect not infrequently the adult also.

There are three cases of these sarcomata in the series.

The diagnosis of malignant disease of the bladder is not difficult. Examination of the rectum furnishes valuable information. Scirrhous growth is very hard, irregular in form, and is thus unlike ordinary senile prostatic enlargement, that is, the so-called "hypertrophy" occurring in elderly men. The sarcomata are full and rounded in form, more elastic to the touch than "senile enlargement," and far more rapid in their rate of increase in size. Epithelioma, slow and restricted in growth, may exist several years before presenting a tumor sufficiently dense to be recognized by palpation or by sounding. In malignant disease pain is a more or less constant symptom, and some hemorrhage is liable to appear, increasing at a later date; it is thus distinguished from papilloma, which is rarely recognizable by the rectum, or even by the sound, manifests its presence first by hemorrhage, often at an early date, and is rarely painful until quite the later stage of its history. In all the three forms of recurring or malignant growths, microscopic observation may corroborate a diagnosis based on the signs and symptoms mentioned, but cannot by itself establish one.

In regard to treatment Sir Henry said: In all cases in which we can ascertain the presence of malignant disease—carcinoma, sarcoma, epithelioma—I am strongly of opinion that it is useless to attempt to remove the growth, and that such interference is liable to aggravate the sufferings of the patient rather than otherwise, and perhaps hasten his end.

Setting these cases aside, I am not less strongly of opinion that it must almost invariably be our duty to recommend an operation for removal, not only when the disease is obviously not malignant, but when there is any reasonable doubt on the subject, which will in the course of the operation be cleared up, and the procedure can then be limited or not, according to the judgment of the surgeon.

In relation to cases in which doubt may arise it must not be forgotten that papillomatous growth may be present as a secondary growth upon another form of tumor in the bladder, so that its presence among the débris examined does not demonstrate the presence of a simple uncomplicated papilloma. No doubt in a large majority of cases the simple growth alone is present, but the exceptional condition is not very rare. It is on this account that I often practice and advise a small perineal incision to be made in the median line, opening the urethra in the membranous portion, so that the surgeon may introduce his index finger into the neck of the bladder. This proceeding I have recommended and much practiced during the last ten years in obscure cases, under the title of "Digital Exploration of the Bladder." When the patient is under the influence of an anæsthetic firm suprapubic pressure enables the operator in all ordinary cases to determine with his finger the size and nature of the tumor. If it be a simple pedunculated growth, as papilloma often is, the introduction of an appropriate forceps will mostly suffice at once to remove it. If, on the contrary, it is found to be large, occupying a wide base, or is otherwise evidently unfitted for treatment by the simple proceeding referred to, the suprapubic operation can be at once performed in the usual way. This I have frequently done, and have never found that the preliminary incision described interferes in any way with the subsequent operation, which is conducted precisely as if no such "exploration" had taken place. When a large prostatic or other tumor is encountered in the rectum it is possible that the finger may not reach the bladder, and so may be incapable of exploring the cavity, but in these circumstances the "digital examination" is wholly unnecessary, the condition in question demonstrating that the case is not one of simple removable tumor, but is probably an example of malignant growth. But it may be said that the diagnosis of a vesical tumor may be readily established by means of the Leiter endoscope. I long ago tested its value, having employed not only the earlier but the latest and most improved form of that instrument. Let me say first that the employment of it in the cavity of the bladder involves much irritation in some cases, far more than that which follows the use of the sound. Secondly, that in presence of a tumor which the slightest mechanical contact causes to bleed, the observation is mostly an imperfect one. Thirdly, that the instrument is rarely necessary to determine the fact of the tumor's presence, that being ascertainable in nine cases out of ten by the ordinary methods already alluded to. Lastly, it is assumed to furnish the means of ensuring a view of the growth which shall enable the operator to determine whether it

is peduncular and easily removable, or the reverse. In regard to this important matter, I admit that the object may be attained, but in the majority of cases I am certain it cannot be thus decided, as when the tumor is not seen in profile and when the bleeding occasioned permits only an imperfect view, a far more accurate idea can be obtained by "digital exploration," which never produces the severe cystitis, becoming chronic and confirmed, which unhappily too often follows prolonged manipulation with a rigid cystoscope in the diseased bladder of an elderly patient. I have performed "digital exploration" upwards of a hundred times and have never met with any serious, far less fatal, issue to that simple operation.

Finally, supposing that by any process whatever the presence of a manifestly carcinomatuos or sarcomatous growth has been discovered I can say nothing, as already indicated, in favor of operative measures for its removal. It is always possible to extirpate the growth, which largely involves the walls of the organ itself, and rapidly reappears after the attempt has been made, although large masses may have been taken away and an apparently almost empty cavity has been left as the result of the procedure.

The palliative treatment for all patients thus affected consists in the avoidance of habits, occupations, and any amount of exercise found by the experience of each individual case to produce serious increase of hemorrhage; the maintenance of the digestive power and healthy activity of the functions which support life is as far as possible to be ensured; and lastly, the adoption of all means, especially towards the closing stage of a case which is certainly destined to be fatal, in order to alleviate suffering which is usually severe and prolonged unless dealt with unflinchingly, as it ought to be in such painful circumstances. The ample use of morphine, usually most effective by subcutaneous injection, should be adopted, so that although unable in any way to check the progress of the malady we may at least mitigate the most terrible accompaniment of its distressing and inevitable course.

Substitute for Milk for Infants.

In the *Buffalo Medical and Surgical Journal*, September, 1890, Dr. Delancey Rochester describes an attempt made, early in March, 1890, to wean a girl baby six months old, because its mother's milk was insufficient. The baby objected to the bottle, and could not be induced to take food by spoon. The foods tried were sterilized milk (Meigs's mixture), malted milk and Carnrick's food. So determined was the objection on the part of the baby to artificial feeding, that she cried and fretted so much at each feeding time as to cause a considerable rise of temperature and vomiting of everything except breast milk. Her temperature ran as high as 104° F. in the groin. The stools were not very frequent nor very bad in character. After all attempts at artificial feeding had proved worse than useless, a wet-nurse was procured and the baby again flourished. After the fever had subsided and the vomiting had ceased, the baby broke out in an eruption that was as similar to the measles eruption as could be imagined. The eruption did not irritate her, and it disappeared in a few days.

About June 1 the wet-nurse's milk began to give out, and partial artificial feeding was begun, Meigs's milk and cream mixture, sterilized, being the food employed. On this the baby did well. The wet-nurse's milk having given out entirely by the end of a week, the sterilized milk was used alone. For two weeks the baby gained in every way—weight, firmness of flesh, quiet sleep and happy waking hours. Then the stools began to show curds; but as in every other respect the baby was doing well, nothing was done for this. The last day of June and first of July were excessively hot days, and the baby wilted completely—feverish, restless, fretting and finally vomiting. Stools remaining as they had been for about a week previous, of good color, but containing curds. By the advice of Dr. Hopkins she was given sodium bromide to quiet her restlessness, and cool baths to reduce her fever. Nevertheless, she vomited every time that milk was given to her. Finally, she was given toast water and white of egg for twelve hours, with no vomiting. At the end of that time a little malted milk was tried, but she retained it not more than five minutes, when she vomited profusely.

Dr. Rochester then began to think what he could give temporarily as a food, until the hyperemia of the stomach should subside and the baby could again take milk in some form. White of egg and toast water given cold he knew she could take, so he thought he would look up the exact composition of egg, and see whether by some addition he could not make a food that would

supply all the necessaries for life and growth. In Routh's *Infant Feeding* and Landois' *Physiology* he found analyses of egg—white and yolk—that substantially agreed. The percentage composition of yolk of egg as given by Landois is:

Water	51.5
Proteids	15.0
Fats, etc.	30.0
Mineral matter	1.4
Pigment extraction	2.1

A glance at this will show that the albuminoids and fats bear about the same relation to each other that they do in human milk. The problem then before us is to dilute the yolk of egg sufficiently with water to make the actual proportions the same as in milk. To do this, of course it was necessary to obtain the weight of a yolk of egg. Dr. Rochester weighed several, and found that each weighed about one ounce—some a little less. Calculating, then, on the total weight of the yolk as one ounce, and remembering that it contained 51.5 per cent. water, to reduce the fifteen parts albuminoids to two parts, it was necessary to add seven ounces of water to the one yolk of egg. The amount of sugar in yolk of egg is very slight, being included in the "etc." added to fats in the above analysis. So, to bring the sugar up to the required amount, it was necessary to add sugar of milk. As there is normally seven per cent. sugar in human milk, this would mean in eight ounces a little over half an ounce. This would make a mixture by weight consisting of:

Yolk of egg	1 oz.
Water	7 oz.
Sugar of milk	½ oz.

For the convenience of the household, Dr. Rochester always makes these proportions by volume, so he measured the half-ounce of sugar of milk and found that it filled six teaspoons in an ordinary medicine glass, so the following formula was prepared:

℞	Take yolk of egg	one
	Sugar of milk	6 teaspoonfuls
	Filtered water	7 ounces

Dissolve the sugar of milk in the water and add gradually to the yolk of egg, stirring constantly.

This was fed perfectly cold, in small quantities at a time, for twelve hours, gradually increasing the amount and lengthening the intervals, until finally the full amount was given four times in the twenty-four hours. He once tried warming it slightly—not enough to coagulate the albumin—but the baby objected to it warm, so that was not tried again.

The baby retained this food from the first. After he began with it, it was no longer necessary to give the sodium bromide; but the baths were kept up, three or four being given daily. She was dressed very lightly and made as cool as possible. Luckily the weather also changed and we had three or four cool days. For sixty hours she lived on the egg food alone. During this time the fever left her entirely, and she again broke out in a copious rash, as much like measles as the previous one. At the end of the sixty hours, as she began to show dislike for the egg food, Dr. Rochester tried again the malted milk. The baby now retained it and seemed very fond of it. So it was gradually substituted for the egg food.

The advantages of this egg food are that it contains all the necessary ingredients for life and growth in the proportions in which they exist in human milk, although in somewhat different form; that it must be given cold, and that it is slightly laxative. It is an advantage that it must be given cold. This has a beneficial action in overcoming the hyperemia of the stomach, and prevents further inflammatory developments. It is an advantage that it is slightly laxative, for it thus aids in the discharge of any milk curds that might be in the bowel ready to set up irritative action. This is really a great advantage, for in the congested state of the stomach this baby was unable to retain any laxative medicine, even calomel in small doses being rejected.

Suprapubic Lithotomy.

At a meeting of the New York Surgical Society, April 23, 1890, Dr. A. J. McCosh presented a patient from whose bladder he had removed nine calculi weighing in all four hundred and sixty grains. The wound in the bladder had been about an inch in length and through this the stones had been removed. This opening had then been sewed up, except a slit left for a drainage-tube. A perineal opening was then made, and after some difficulty, on account of an enlarged prostate, a tube was introduced into the bladder for perineal drainage. Some trouble had been caused by occlusion of this latter tube by mucus during the first

few days, and during this time the urine had come entirely through the suprapubic opening. A large perineal tube was introduced and perfect drainage thereby established. Thirteen days after the operation the suprapubic wound had closed. The perineal wound was now almost healed, and most of the urine now came through the penis. The speaker had reported the case to emphasize his appreciation of the advantages of the perineal opening. It had been very noticeable that whenever the drainage through the perineal opening was insufficient and the urine was forced to find outlet through the suprapubic incision, the patient's general condition had changed for the worse. His temperature went up a degree or more, his pulse increased in frequency, and his appetite failed. When the perineal drainage was re-established, the man became himself again. The speaker was much impressed with the result, and in operating upon other old patients, this one being seventy-two years of age, he should certainly make the perineal opening, while in younger ones he would also favor this opening and the suturing of the bladder wound as recently advocated before the society by Dr. McBurney.—*New York Medical Journal*, August 30, 1890.

Conception with Unruptured Hymen.

Dr. W. Macfie Campbell, of Liverpool, read before the Edinburgh Obstetrical Society, April 9, 1890, a paper published in the *Edinburgh Medical and Surgical Journal*, September, 1890, in which he describes the case of a young lady who was brought to him by a relative of the young man to whom she was engaged, as she had not felt well lately. Something about her appearance caught Dr. Campbell's attention as she entered the room, and he made inquiry as to her menstruation as soon as possible. She had not been unwell for three months, but that had occurred before. She was listless, tired, breathless, and did not know what she felt. She said she was always plump, and did not think her bust or figure increased. Examination of the mammæ revealed dark areolæ, distended cutaneous veins, and a milky fluid was easily expressed from her nipples. By the stethoscope the fetal heart was readily detected. Dr. Campbell thought it prudent to ask the relative to step into another room, and then told his patient that she was pregnant. He had frequently had to make such an announcement, but had never seen it received with such amazement and incredulity. "Utterly impossible," the patient said, but still with something in the expression which meant that there was a possibility. Still insisting, she told Dr. Campbell that opportunity having twice offered, her fiancé had got into her bed, and had had imperfect intercourse with her. No penetration nor attempt at penetration had been made. This was afterwards corroborated by the young man. On examination, the blue appearance of the vulvar mucous membrane was well marked, and the hymen was perfect, but admitted the forefinger without causing much pain. The young man was so positive, that Dr. Campbell saw he feared some other paternity. He was however assured that the young woman was *virgo intacta*. The parties were married soon after, and it was not until six weeks after that that penetration was effected, with a sensation of rupture.

Some years ago Dr. Campbell had two confinement cases within a few days, in which both husbands told him they could not understand their wives' pregnancy, as intercourse had never been perfect. In one case he had to divide the distended hymen bilaterally to allow the head to emerge; in the other there was no great difficulty in dilatation. Dr. Gooch relates a case of a lady privately married, in whom he diagnosticated pregnancy, and was met by the statement of impossibility. Her husband had avoided injury to the hymen, and both considered pregnancy impossible. The event, however, proved Dr. Gooch to be right. Dr. Braun, of Vienna, gives three instances of the same. In the first case coition had taken place in a dilated urethra, and Dr. Braun supposed ejaculation had taken place prematurely. Delivery took place without injury to the vagina, the hymen rupturing at the last moment. In the second case, a girl of sixteen years confessed to one imperfect attempt at intercourse. The orifice in the hymen only admitted a goose quill. The third case was exactly similar in age and history. Dr. Braun draws the conclusions that an unruptured hymen is no proof of virginity; that an individual may exist as a virgin in the anatomical, though not in the gynecological sense; and that pregnancy is possible without penetration. Surgeon-General Francis relates the case of an officer's wife, in whom pregnancy was de-

clared impossible by husband and wife, the reason being a tense hymen, which had resisted penetration, and which only gave way after a long delay in delivery.

These cases are of great interest, as throwing doubt upon the theories of uterine activity in the act of impregnation, and of exact apposition of the orifices of the urethra and cervix as being necessary; and rather point to the entrance of the semen into the uterus, and further, as being due to inherent forces, or ciliary action of the vaginal mucous membrane.

Experiments with Orexin.

Since the publication in the REPORTER, August 16, 1890, of a brief note upon orexin, there has appeared, in the *Münchener Med. Wochenschrift*, August 19, 1890, an article by A. Beckh, describing a series of experiments with muriate of orexin. The experiments were conducted in the medical ward of the city hospital of Nuremberg, and were begun soon after those of Penzoldt. Orexin was administered to twenty-two patients who suffered with loss of appetite from various causes. A good effect was produced in seventeen cases; in one case the result was doubtful, because it was difficult to decide whether the patient's loss of appetite had been simulated or not; and in four cases the remedy failed completely. It was given to patients with anemia, chlorosis, and tuberculosis, and to some with anorexia produced by different acute and chronic diseases. In two cases of chronic disease of the stomach it was given with very good results.

At first orexin was administered in gelatin-coated pills, and later in capsules—which is the preferable way. Beckh began with doses of four or five grains a day, which were increased, as required, by the third day to seven and a half grains. A larger dose than this was not given, and a large glass of meat broth or milk, or a plate of soup, was always taken by the patient in addition. In a few cases disagreeable effects, such as burning in the stomach, and vomiting, were noticed.

Beckh concludes that orexin is worthy of further experimentation as a stomachic, and that it is to be recommended in anemia and tuberculosis. It may also be employed with caution in chronic diseases of the stomach, but not when there exists anatomical change in the mucous membrane; as the drug is a strong irritant. For the latter reason also it must be given with a certain quantity of fluid, preferably meat broth or soup.

Death from Nitrous Oxide.

A death from nitrous oxide is reported from Montreal. A man, aged twenty-four, went to the office of a dentist to have a tooth extracted, and requested to have the gas administered. After assuring himself that the patient was not suffering from heart or lung disease, the dentist administered the gas. No sooner had the tooth been extracted than the patient gave a gasp and fell over in the chair. He was placed upon the floor and artificial respiration performed, but without restoring animation. The patient was not under the influence of liquor, and five hours had elapsed since last taking food (breakfast). The purity of the nitrous oxide was tested shortly after the accident by the president of the dental association, Dr. Beers, who himself inhaled it from the same inhaler. The verdict of the jury was that the man died from syncope, caused by the administration of the gas, and they exonerated the dentist from blame.—*Druggists' Circular*, September, 1890.

Women Physicians in India.

From a parliamentary paper which has just been issued, we gather that a considerable number of native women have taken up the study of medicine in India. At the close of the session 1888–9 there were twenty-four female students at the Calcutta Medical College, fourteen at the Campbell Medical School, and five at the Cuttack Medical School. At Agra, during the year, seven young women received licenses to practice. At Lahore there were nineteen, and at Madras thirty-nine female medical students, one of the latter being the first to take the degree of M. B. at the Madras University. There were also female students at the Grant Medical College of Bombay, and at the Government Medical Schools at Poonah, Ahmedabad and Hyderabad. The movement initiated, or at all events patronized, by Lady Dufferin is thus giving good fruit, and as the objections entertained by many over here to the practice of medicine by females do not apply in India, with its peculiar social conditions, this result must be a matter for congratulation.—*Medical Press*, September 3, 1890.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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PHYSIOLOGICAL ACTION AND USES OF COCAINE.

The physiological action of cocaine will be understood most easily by contrast with that of curare. The latter is well known as the type of peripheral motor-nerve paralyzers; cocaine, on the contrary, exerts its action upon the peripheral sensory nerves. They resemble each other, according to Dastre, involving only the terminations of the nerves; the nerve trunks preserve their excitability, and may even have it exaggerated. Again, while curare paralyzes the vaso-constrictor nerves within the blood-vessels, cocaine, on the contrary, excites them.

Cocaine in small doses appears to act as a general stimulant, producing a feeling of exhilaration, with an increased flow of speech, wakefulness, and a more rapid development of ideas, without, however, increased capacity for brain work. In this respect cocaine resembles morphine by contrast with caffeine. The heart and respiration are accelerated. In larger doses it causes slight dimness of vision, a feeling of tension and constriction of the forehead, with perhaps slight headache, dizziness, and great restlessness. The latter symptom is due to hyper-excitability of the muscles, and is explained by the condition of the nerve-trunks. In still larger doses, the effect of cocaine in constricting the blood-vessels is evidenced by coldness of the extremities. The rise in blood-pressure which occurs is due in part to this and in part to acceleration of the heart's action.

Respiration is accelerated by cocaine, while under poisonous doses it becomes embarrassed and shallow, and stops before the heart. The pupil is dilated through stimulation of the sympathetic system. General analgesia develops only late and under poisonous doses; so that it is of no clinical importance.

Toxic doses of cocaine produce in some cases death preceded by collapse, cyanosis and convulsions, the respiration especially being affected. In some cases the patient becomes very restless and loquacious, the speech is thick, and the sentences unfinished, the mouth and throat dry, the patient is giddy, and staggers on attempting to walk, and is covered with a cold, clammy sweat. In some cases collapse and unconsciousness have developed speedily, and have been succeeded by active delirium. Autopsies in fatal cases have demonstrated the presence of cerebral and visceral congestions, especially of the kidney.

Prolonged use of cocaine has resulted in chronic poisoning, and in the production of the "cocaine habit." The former is said to be characterized by great excitement, hallucinations chiefly of sight and hearing, and great weakness of the lower limbs, almost amounting to paresis.

Cocaine is used in medicine and surgery

principally as a local anæsthetic. The limits of its applicability have not yet been determined. It is most serviceable, however, when applied to the more delicate mucous membranes, such as those of the eye, nose, urethra and vagina, where the peripheral sensory nerves are close to the surface and from which absorption is rapid.

Space will not permit a detailed mention of all the cases in which cocaine can be used; in general it may be said to be wherever the irritated nerves can be reached, whether exposed in a hollow tooth or bared by cancerous ulceration, as in the breast. Hypodermically it has been used, with more or less success, in the extraction of teeth, the opening of buboes, the excision of small tumors, to prevent the pain caused by iodine when thrown into the tunica vaginalis for the cure of hydrocele, and in various other minor surgical operations. It forms a useful addition to soothing ointments, such as those for acute eczema or for pruritus.

Its property of contracting blood-vessels and drying mucous membranes makes it especially serviceable in acute coryza. It is most effective in the congestive (first) stage, but even when there is a profuse watery or mucous discharge, it gives more relief than any other remedy. A watery solution should be used, and eight or ten drops of a four or five per cent. solution may be snuffed up each nostril as often as the necessities of the case demand.

Internally, cocaine has been employed to check vomiting, and in some cases with great success. Gastralgia has also been relieved by it.

In what has just been said, an effort has been made to point out the most important physiological actions of cocaine, and to suggest the classes of cases in which it is likely to prove useful, rather than to enumerate the separate affections in which it may be used. Whenever it is used, it should not be forgotten that cocaine is as much a poison as morphine or strychnine, and that, being more uncertain in its effects, it should be watched with more care. It would seem to be most dangerous to nervous patients with weak hearts.

ATROPIA FOR NOCTURNAL INCONTINENCE.

To get at the truth is better than to have false hopes; and it is with great satisfaction that we call attention to a paper by Dr. R. Bruce James in the *Archives of Pediatrics*, September, 1890, which seems to definitely decide a very important question in therapeutics. As the readers of the REPORTER know, Dr. Simon Baruch, in December, 1888, read a paper before the New York Academy of Medicine in which he discussed nocturnal enuresis in children and its treatment, bringing to the notice of the medical profession the great value of the alkaloid atropine in this affection, as evidenced by results obtained in quite a number of cases in which he had used it. But he added that since his cases had not been very long under observation he could not predict the ultimate result to be obtained.

Dr. William Perry Watson, of Jersey City, read before the American Medical Association, at its last meeting, a paper in which he reported in detail thirty unselected cases of enuresis, all cured or greatly benefited by this drug. Prompted or encouraged by such glowing accounts of the virtue of this drug, many of the profession resorted to its use with great confidence and expectation. But a long and faithful trial of it has scored another failure in our search for specifics. For some have found that the number of cases of enuresis cured by atropia, during its administration, is great, but the number remaining cured when the drugged is stopped is small indeed. Dr. James, while resident physician in an Orphan Asylum in New York, had under his charge many cases of enuresis that had resisted belladonna, strychnine and the other lauded remedies. After hearing Dr. Baruch's paper, he determined to give atropia a trial. Fifteen of the worst cases, among the smaller

children, from three and one-half to nine years old, in which no cause for the trouble could be made out, were selected. Some of them wet themselves alternate nights only, others every night, while a few suffered from diurnal as well as nocturnal enuresis.

The plan of treatment was to make a solution of atrophia sulphate, of which one teaspoonful represented one-hundredth grain of the drug. Of this solution, for the first night, each child had one teaspoonful at 6 and another at 9 P. M., and this being increased by one teaspoonful every night until a controlling dose was reached for each case. None of them were benefited by less than four-hundredths of a grain at night—*i. e.*, two-hundredths of a grain at 6 and two-hundredths of a grain at 9 P. M.—while others required as much as eight-hundredths of a grain, divided as above; one child was given as much as one-tenth of a grain at night without showing symptoms of poisoning.

Nothing short of the quantity that produced full physiological effects was of any avail. This point was insisted upon by Dr. Baruch in the paper referred to. After the controlling dose was ascertained for each case, it was repeated every night for about one month, when the drug was withheld altogether. It was found that many of the cases were completely relieved, while others were not benefited. The latter were immediately put on their controlling dose and an attempt made to diminish it, but without much success in this, though in no case was it found necessary to increase the original controlling dose, except in one case. Of the cases completely relieved, the enuresis returned in all, with one exception, in periods ranging from one to six weeks. The child that was cured was a healthy boy, but slightly affected. These children were put on their controlling doses as they relapsed, and an attempt was made to taper off with them also; and in some cases a considerable reduction of dose was effected. The cases were kept under close observation for eight months, during which time many of them would go without the drug, or on reduced doses, from one to four weeks without wetting themselves. But sooner or later the relapse would occur, and at the end of the eight months they were but little better than when we started treatment.

It can be seen how any one, who has not kept a long watch over his patients, could readily arrive at the conclusion that permanent relief had been obtained in most of these cases, especially if he depended on the matron or person in charge of his cases for his information; for after such complete relief afforded by the treatment she is slow to acknowledge a relapse, and it is only after the closest scrutiny and questioning that you can arrive at the actual state of affairs. Such, at least, has been Dr. James's experience; for not a few of the cases he reports here were marked cured in his notes, after questioning the matron carefully; but, visiting the wards himself early in the morning, he found that such was not the case. No doubt this element in human nature is largely responsible for erroneous conclusions arrived at and published by those who rely too implicitly on the information gained from attendants.

In only one case did any symptom of poisoning occur, and in this not sufficient to warrant a suspension of the remedy or even a diminution of the dose. Under the long-continued use of the drug, though in such large doses, there was observed no bad effects from it, but, on the contrary, the children, being relieved from the stigma of being bed-wetters, were brighter and less constrained than when the drug was left off, with the consequent return of the enuresis. Some of the children, though under the age of five years, were so ashamed of their affliction that, on finding they had wet their beds at night, they would exchange their wet sheets for dry ones from the cots of their slumbering neighbors, thus shifting the coming lecture to innocent shoulders: so great was the effect of the so-called moral treatment.

Every case was absolutely controlled so long as the treatment was kept up, except one case, in which it lost its effects after some months of complete relief, and this from some unknown cause which was never overcome, though the drug was pushed to a dangerous point. It is a matter of no little regret that, after such a promising beginning, the final result shows such a little gain. On October 1, after eight months of treatment, of the fifteen cases, two cases were cured, and these mild cases. Two others were benefited, in that they did not wet their beds so often. One it ceased to benefit, while ten showed little or no improvement when the drug was stopped.

In conclusion, Dr. James says that since the long-continued use of atropia has no ill effect, no tolerance is established that requires an increased dose, and since undoubtedly the vast majority of these cases can be controlled by the drug, atropia is for these children and for their mothers a valuable friend. When a child is too large to wear diapers, or they cease to be effectual, we can with confidence offer a substitute in the shape of a full dose of atropia, to be repeated every night till the child has outgrown his infirmity; and this point can be tested by having the drug withheld from time to time. Dr. James put many other cases of enuresis on atropia, and it controlled the trouble in every child under twelve years of age. Thirteen months after the treatment was begun, these children were about as they were six months before, still receiving nightly doses of atropia, and improved only as might be expected with their advance in years. As to those over twelve years old who received this treatment—which were quite a number—they did badly. Dr. James cannot recall a case that was benefited in the least.

We may regret that careful observation should dispel the illusions created by somewhat premature conclusions, but it is of the greatest importance that we should not be deceived as to the value of any method of treatment. The one discussed above has great value if rightly understood, but it is evidently not the panacea which some have thought it.

THEINE IN THE TREATMENT OF NEURALGIA.

Every now and then cases of neuralgia are reported which have been treated successfully by the hypodermic injection of theine. The local anæsthetic action of this alkaloid was, we believe, first brought to the attention of the profession by Dr. Thomas J. Mays, about four years ago, who, from his experimental and clinical investigation, concluded that its physiological action is not identical with that of caffeine, and that its analgesic action is more prompt and more permanent in neuralgia than that of morphine or of any of the other agents in common use for the purpose of deadening pain.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES. Edited by CHARLES E. SAJOUS, M. D., and seventy associated Editors. Illustrated with Chromo-lithographs, Engravings and Maps. Five volumes, octavo. Philadelphia: F. A. Davis, 1890.

The early promise of this admirable publication has been so well fulfilled that the *Annual* is worthy of comparison with the best works of a like character in France and Germany. How much this implies will be understood by those who are familiar with the latter. When the *Annual* was first projected it seemed hardly possible that it could so soon reach its present position. But the enterprise of the publisher and the tact and skill of the editor have brought it about. As it stands to-day, the *Annual* is a work of very great value and one which every intelligent physician might well have and consult.

MEDICAL DIAGNOSIS, WITH SPECIAL REFERENCE TO PRACTICAL MEDICINE. A Guide to the Knowledge and Discrimination of Diseases. BY J. M. DA COSTA, M. D., LL. D., Professor of Practice of Medicine and of Clinical Medicine at the Jefferson Medical College, Philadelphia, etc. Illustrated with engravings on wood. Seventh Edition, revised. 8vo, pp. 995. Philadelphia: J. B. Lippincott Company, 1890. Price, $6.00.

Da Costa's *Medical Diagnosis* occupies a unique place in medical literature. From the time the first edition was published, in 1864, to the present time it

has been the most widely known and most highly esteemed work on the subject. It is one of the first to be taken up by the intelligent student and one of the last to be laid down, and then, perhaps, only when he ceases to handle books of any kind. So great is the esteem in which it is held by some, that it almost amounts to affectionate reverence. The explanation of this high regard is to be found in its manifold excellences. It is the most comprehensive treatise on diagnosis extant, yet its delineations of disease are never tedious and prolix. Other books there are which give as truthful accounts of the symptoms of disease and their significance, and in individual cases, perhaps, with greater precision and in more detail; but no author in this department of medicine has so far succeeded in preserving throughout his work such a nice balance between the essential characteristics of disease and the unessential details, and so giving to the reader a complete but concise description. Moreover, the style of the author is pictorial and captivating; each disease as described seems to stand out from the general background of diseases with clear-cut, distinct features; the picture is vivid but not exaggerated in its coloring.

The classification adopted by the author is almost purely clinical, the diseases being grouped according to their marked symptoms. This classification possesses decided advantages, especially for students, who learn first the course and symptoms of disease, and later their pathology. It has this drawback, however, that the student is apt to conceive of disease as a group of symptoms instead of a pathological process, and as affecting one organ alone instead of only manifesting itself in a particular case more prominently in one organ than in another.

Taken as a whole, this is the best book of its kind on the subject. One cannot help, as an American, being gratified to learn from the preface to the present edition, that a second edition of the German translation, by Dr. Engel and Dr. Posner, has appeared in Berlin; that a Russian translation has been issued; and that a French translation, by Dr. Laurent, is now in progress.

FIFTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF MAINE. For the fiscal year ending December 31, 1889. 8vo, pp. x, 304. Augusta: Burleigh & Flynt, 1890.

The annual publication of reports by State Boards of Health indicates in a general way the increased interest that is being taken in hygiene and the prevention of disease. Many of these reports are crude efforts and clearly show that the information they have been able to collect is neither full enough nor precise enough to be of much value. Nevertheless the existence of such Boards and the occasional issuing of statements bearing upon the public health, must eventually make an impression for good and arouse the people to the importance of cleanliness and disease prevention, if only from an economic point of view.

The present Report contains very little of peculiar interest, because the health of Maine during 1889 was fairly good. The report of the Secretary, Dr. A. G. Young, of Augusta, shows that much good work has been done in the way of vaccination, school-house inspection, water analyses, etc. Much valuable sanitary information is given in a series of fifty or more abstracts, entitled, "Various Sanitary Topics," selected by the Secretary. F. C. Robinson, a member of the Board and Professor of Chemistry in Bowdoin College, contributes a paper on "Arsenic in Wall-paper." He examined "several hundred" samples of wall-paper, from different parts of the State, and he states that "upwards of one hundred of them are free from the poison or contain the merest trace. In fact, but three only have been found which are unmistakably dangerous."

As the Report has been prepared for all classes of persons, a glossary of technical terms has been added for the benefit of those unacquainted with their meaning. This is thoughtful. Altogether the Report makes a very satisfactory showing.

GEOLOGICAL SURVEY OF NEW JERSEY. Annual Report of the State Geologist for the year 1889. 8vo, pp. 112. Camden, N. J.: F. F. Patterson, 1889.

That admirable man and excellent geologist, Dr. George H. Cook, who was appointed State Geologist March 30, 1864, died September 22, 1889, and the present Report contains a brief notice of his services. The work done during 1889 was planned by him, and he also outlined a scheme for its continuance. Dr. Cook's former assistants, Mr. Irving S. Upson and Mr. Frank L. Nason, continue to act, the former being in charge of the office; while Prof. John C. Smock becomes consulting geologist.

The Report contains, first, notes on the Geodetic Survey, by Prof. E. A. Bowser. Mr. Frank L. Nason reviews the geological studies of the Archæan rocks from 1836 to the present time. Sufficient data, he says, have been collected to show that the rocks of the Archæan are not homogeneous, but that they are belts which are similar and persistent. A systematic attempt has been made to discover some orderly succession of rocks, or groups of rocks, which will hold true for the whole Archæan field. The result has been the selection of four types, named for the locality in which the rock prominently occurs. These types are: Mount Hope, Oxford, Franklin, and Montville. The first is in part the feldspathic gneiss of Prof. Smock, and in part, the hornblende gneiss of Dr. Britton. The second is in part, probably, the syneite gneiss of Prof. Smock, and the hornblende gneiss of Britton. The third is probably a biotite gneiss. The fourth is the white or crystalline limestone, although this has not been proved to be of Archæan age. The paper concludes with a statement of the economic relations of the Archæan Highlands.

A less elaborate article, by the same author, follows. It is a study of the Triassic or red-sandstone and Trap rocks. Mr. George W. Howell has a short paper on drainage, with reference to the Pequest and Passaic rivers; and C. C. Vermeule one on Water Supply and Artesian Wells. Mr. Lewis Woolman writes upon the Artesian Wells of Atlantic City. The volume concludes with some statistics of iron and zinc ores.

The geological survey of New Jersey has fallen into excellent hands. Certainly the present Report will add considerably to the scientific reputation of Prof. Cook's successors.

—A cement for slides holding preparations in glycerin is prepared by Dr. S. Apathy (*Zeitsch. Wiss. Mikr.*) by melting together equal parts of Canada balsam and paraffin (60° melting point), and continuing the heat over a moderate flame until terebinthinous vapors are no longer perceptible, and the mixture has assumed a golden yellow hue. The mass, hard when cold, is applied by first melting again.

LITERARY NOTES.

—We have received the first number of a journal called the *Review of Insanity and Nervous Disease.* The initial number contains 110 octavo pages. It is to be a quarterly, to contain almost exclusively abstracts, translations and selections, and no number is to have more than one original article. The editor is Dr. James H. McBride, of Milwaukee, Wis., and the agents are B. Westermann & Co., New York, and W. T. Keener, Chicago. The subscription price is $2.00 per annum.

—The *Cosmopolitan* for October is a very handsome and interesting number. Captain Charles King, who recently visited St. Paul and Minneapolis, has in it an illustrated article entitled "Twin Cities of the Northwest" which will prove interesting reading not only to the citizens of these two cities, but also to a great number of readers scattered throughout the country who have watched with astonishment the marvellous growth of these towns.

NEW REMEDIES AND APPLIANCES.

[In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.]

Invalid Mattress.

Mrs. H. J. Webb, of Lockport, N. Y., has designed a mattress intended for the use of invalids. The invention consists in an arrangement by which different sections of the mattress may be detached and turned back. The advantages of an apparatus of this kind are well known to medical men, and it is also convenient to know where a thing of this sort can be procured. The sale of the mattress is in the hands of Mr. George H. Webb, of Lockport.

QUESTIONS AND ANSWERS.

[In this department will be published questions on any medical subject by readers of the REPORTER, and answers by the EDITOR or by other readers.]

DR. G. W. ENSLEY, of Waverly, Wash., writes: During the past eighteen months that I have been reading the MEDICAL AND SURGICAL REPORTER I have noticed a number of articles pertaining to the mode of administering cocaine, but very little as to its constitutional actions and uses. Will you kindly give a brief account of the latter in an early issue?

[The answer to this request will be found in the editorial columns of this issue of the REPORTER.]

NOTES AND COMMENTS.

Southern Surgical and Gynecological Association.

The Southern Surgical and Gynecological Association will be held in Atlanta, Georgia, November 11, 12, 13, 1890.

The papers announced to be read are: The President's Annual Address, George J. Engelmann, M. D., St. Louis, Mo.; How Shall We Treat Our Cases of Pelvic Inflammation? R. B. Maury, M. D., Memphis, Tenn.; The General and Local Treatment of Gangrenous Diseases and Wounds, Bedford Brown, M. D., Alexandria, Va.; Further Study of the Direct and Reflex Effects of Lacerations of the Female Perineum, J. H. Blanks, M. D., Nashville, Tenn.; Abdominal and Pelvic Surgery in America, Joseph Price, M. D., Philadelphia, Pa.; Intra-Ligamentous Ovarian Cystoma, Cornelius Kollock, M. D., Cheraw, S. C.; Anatomy and Pathology of the Ileo-Cæcal Region, Richard Douglas, M. D., Nashville, Tenn.; Wet Antiseptic Dressings in Hand Injuries, Wm. Perrin Nicolson, Atlanta, Ga.; The Best Route to the Bladder in the Male for Disease or for Foreign Bodies, Hunter McGuire, M. D., Richmond, Va.; Suprapubic Cystotomy in a Case of Enlarged Prostate, Wm. H. H. Cobb, M. D., Goldsboro, N. C.; Indications for Cholecystotomy, A. M. Owen, M. D., Evansville, Ind.; Uterine Moles and Their Treatment, J. T. Wilson, M. D., Sherman, Texas; Strictures of the Male Urethra, W. F. Westmoreland, M. D., Atlanta, Ga.; Treatment of Urethral Strictures by Electricity, W. Frank Glenn, M. D., Nashville, Tenn.; The Surgical Treatment of Empyema, J. A. Goggans, M. D., Alexander City, Ala.; Cases in Abdominal Surgery, I. S. Stone, M. D., Lincoln, Va.; Rectal Medication in Pelvic Troubles, W. Hampton Caldwell, Lexington, Ky.; Conservative Surgery in Injuries of the Foot, J. T. Wilson, M. D., Sherman, Texas; The Management of the Infantile Prepuce, George Ben. Johnston, Richmond, Va.; The Ultimate Results of Trachelorrhaphy, Virgil O. Hardon, Atlanta, Ga.; Further Observations on the Dangers of Operative Delay in Prostatic Troubles, with Personal Experience, R. D. Webb, M. D., Birmingham, Ala.; Clinical History of the Epicystic Surgical Fistula, with Cases, John D. S. Davis, M. D., Birmingham, Ala.; Foreign Bodies in the Air Passages, with Report of Cases, John E. Pendleton, M. D., Hartford, Ky.; Cholecystotomy, W.

E. B. Davis, M. D., Birmingham, Ala.; Two Cases of Laparotomy for Intestinal Obstruction, J. T. Jelks, M. D., Hot Springs, Ark.; Is Gonorrhœa Ever a Cause for Pelvic Inflammations? J. R. Buist, M. D., Nashville, Tenn.; and papers the titles of which have not been sent in, by W. O. Roberts, M. D., Louisville, Ky.; L. S. McMurtry, M. D., Louisville, Ky.; Wm. D. Haggard, M. D., Nashville, Tenn.; Hunter P. Cooper, M. D., Atlanta, Ga. Information in regard to the meeting may be obtained of the Secretary, W. E. B. Davis, M. D., Birmingham, Ala., or the President, George J. Englemann, M. D., St. Louis, Mo.

Hydrophobia Notes.

[The following is a summary of such information as the REPORTER has been able to gather from newspaper publications in regard to the Pasteur Institute in New York. Fuller and more exact reports, direct from Dr. Gibier, would be welcomed by the profession.]

Since the point to which the report in the MEDICAL AND SURGICAL REPORTER, July 5, carried the notes on hydrophobia, Dr. Gibier has expressed his opinion in regard to the case of a French Canadian who died in Bellevue Hospital, June 10, with his arms tied to the side of the bed, and four men holding him, while the physicians dosed him with morphia and gave him chloroform. Gibier says it was a genuine case of hydrophobia. The following cases were received for treatment at the Pasteur Institute in New York:

June 12, a woman bitten by a cat was taken to the Pasteur Institute in New York, where Gibier had "strong hopes" of saving her life.

June 12, a woman of New York, bitten by a cat.

June 14, a young man bitten by a dog in Rhode Island; a woman bitten by a dog at Jamaica (N. Y.?)

June 17, a boy, twelve years old, bitten two weeks before by a dog which was at once drowned. Dr. Gibier refused to treat him, saying he would certainly die of hydrophobia. [He got well, however.] The same day a woman in Brooklyn, bitten by a friend's Newfoundland dog.

June 28, a man from Brunswick, Me., a colored boy from Asheville, N. C., a colored girl from Augusta, Ga., a man from Norwich, Conn.

July 2, a man over seventy years old bitten, October 6, 1889, by a dog, came to Gibier, who told him he could do nothing for him, and that he was a "doomed man." [He got over his symptoms, however, and did not die as Gibier predicted.]

The same day a young working girl came from Massachusetts, bitten by a dog thirty-three days before—dog immediately killed and nothing known as to its having rabies.

Also came a small boy, of New York, bitten, June 30, by a dog, which was shot by a policeman. A man of New York, wounded by a cat, was sent away to watch the cat closely and return if it developed signs of rabies.

July 6, a daughter of a physician of New York, bitten on the hand "some time ago."

July 7, two men from Brooklyn, bitten July 4, by a bull dog. The dog was placed under surveillance of a veterinarian. (One account says it was "crazed" by fireworks and was killed at once.) The same day also a veterinarian of Massachusetts, bitten May 5, in the leg, by a dog he was watching for rabies.

July 10, Mr. Joel Palmer and two children, of Voluntown, Conn., bitten July 9, on the hands by their own shepherd dog, which was chased and killed.

July 11, an infant two years old, in N. Y. bitten in leg by a dog that "escaped."

July 13, a man from Arizona, bitten in the ear and hand by a skunk two months before.

Also a commercial traveler of New York, bitten in the leg in Connecticut; and a boy from New Hampshire, bitten on the elbow.

July 18, a boy bitten in the leg, and another boy bitten in the arm.

[Gibier sailed for Europe July 19.]

July 21, a physician, his wife, and a servant who were not bitten, but had received upon the hands saliva from a dog afterwards suspected of having rabies; also a man from New Brunswick bitten four weeks before.

July 27, a woman of Hamburg, Conn., Mrs. Rosenthal, said to have showed symptoms of hydrophobia a few days after being bitten by a rabid dog, was reported to have been successfully treated by Gibier.

August 4, a young woman from Somerville, Mass., badly lacerated in the thigh and arm by a "mad dog" was received at the New York Pasteur Institute. On the same day a small boy from New Jersey, bitten on the thigh by a dog that afterwards died with symptoms of rabies; and a man from Springfield, Mo., bitten on the hand.

The dog "had to be shot before his jaws could be loosened" from the man's hand.

August 13, Moses Moore, of Arizona, bitten on the foot by a skunk a few days before, was "on his way to the Pasteur Institute in New York."

[August 31, Gibier returned to New York.]

September 10, a boy fourteen years old from Nebraska, bitten 28 days before by a dog, which had bitten a cow, which died ten days later of "hydrophobia." The same day a young man from Norfolk, Va., bitten by a "mad dog," August 29; also Miss Maggie Quenzer, of Plainfield, N. J., bitten in the hand on that very day by a dog which was killed, and which Gibier said was rabid because he found its stomach "terribly diseased" and "containing stones, nails, and pieces of wood." [A child bitten by the same dog at the same time was *not* taken to Gibier, and we believe has fared as well as his patient.]

Florida's University.

The plans of the buildings for the projected university at Tarpon Springs, Fla., of which Dr. Charles E. Sajous, of Philadelphia, is President, are now in hand, and it is stated lectures are to be commenced on October of next year. At first there will be only one building, but others are to be added. The lines of Harvard are to be closely followed, and there will be faculties of medicine, law, theology, arts, veterinary surgery and dentistry.

The university has been mainly founded for students of debilitated health who are compelled by the severity of the Northern winters to forego study during those months and to travel in the South. The medical department will give special attention to the study of climatic treatment of pulmonary affections. There will be a sanatarium and colony founded in connection with the university, and the whole will form a health resort for the winter months corresponding to the European Riviera.

Bacteriology Run to Extremes.

The *Medical Record*, August 30, 1890, says editorially: Is it not about time to halt a while in our restless search after the microscopical accompaniments of certain diseases, and pause to consider what we are accomplishing, and whether there is not some danger of becoming men of one idea, narrow to the extreme in our conception of what disease actually is, and of how we ought to combat its ravages. It may be that we are no different from other men, yet it would seem as though medical men might be justly called the Athenians among men of science, in that they "employ themselves in nothing else, but either in telling or in hearing some new thing," and when they have found that new thing they let everything else go and cling to that alone. It is thus with the study of bacteriology. It has been ascertained almost to a certainty that the tubercular process, for example, is associated with a certain form of microscopic growth which is not found as an accompaniment of other diseases. It is therefore assumed, correctly no doubt, that this micro-parasite is the cause, either directly or indirectly, of tuberculosis. Other microbes have been found in relation with other diseases, and it has also been assumed that a causal nexus exists. This is well enough, it is a plausible theory, and one that offers great hope of advance in the therapy of certain diseases, and if it does not blind us to the actual necessities of treatment and lead us to neglect the plain indications while running after some specific microbicide, there is no objection to its further study and amplification. But here is where the tendency of mankind, in general, and seemingly of the medical profession, in particular, to ride a hobby to death betrays itself. Some are not satisfied in accepting what has already been proven, but they must assume what remains to be, and which possibly never will be proved. They look for the bacillus in every departure of the human organism from health, and they run a serious risk of making themselves, as well as the science which they study, ridiculous. Not long ago it was gravely announced in an Italian journal that some one had discovered the bacillus of old age. Of course that was intended as a joke, but so ready at the present day are some minds to see the infinitesimal in pathology that not all could see the joke, and several medical papers reproduced the item containing the announcement of the great discovery in all seriousness, never for a moment seeming to see in it anything but the most natural discovery, and one that would explain many of the lesions found in those of advancing years. But there are other things put forward in good faith which are almost as ridiculous. Not long since a Russian

investigator examined the water obtained from melted hail-stones, and found it to contain several varieties of bacteria. There was nothing very remarkable in this discovery, for it would have been strange had no bacteria been found, but what was remarkable was the conclusion which the man drew. He thought it very probable, since rain, snow, and hail had all been found to contain micro-organisms, that there was a specific, and hitherto undescribed, disease to which only those were liable who had been exposed to a storm and had been wet to the skin by water containing these peculiar bacilli. It is not the search after microbes that is absurd, but the conclusions which many run to without first establishing their premises. We are not yet in position to assert that there can be no disease without its specific micro-organism, and those who do so maintain are in danger of making their science a subject of ridicule to men whose range of vision extends beyond the microscope field. They also interfere with therapeutic progress by turning men's minds away from the phenomena of diseased action and hunting after an invisible foe, which may after all be found to have less power for evil than it is now credited with.

Maggots in the Stomach.

In the *Deutsche Medicinische Wochenschrift*, June 26, 1890, Dr. Landon, of Elbing, reports the case of a child, six and a half years old, who was attacked with vomiting and diarrhœa after vaccination. The stools contained a large number of worms. The mother stated positively that the discharge of worms did not occur every day, and that these were only present in the stools and not in the vomit. The child died in eight weeks, with manifestations of extreme exhaustion. It was robust and healthy at birth and had been fed with artificial food: flour and milk prepared the day before using. Through carelessness and lack of cleanliness, it is possible the disease resulted from the presence of the ova of flies in the food, a condition referred to by Kirchenmeister in his text-book. The parasites were examined by Virchow and Chun. The latter called the larva that of the horse-fly—*tabanus*—which lays its eggs in the nasal cavity of the horse. Displaced larvæ find their way through the pharynx into the stomach and fasten themselves to the mucous membrane by means of a pair of hooks, situated on the head, so that the stomach of a horse may be literally studded with the parasites. A similar state of affairs might be present in the human stomach.

Autopsies in such cases are rare on account of the generally favorable course of the disease, and none was made in Landon's case; so that it is not as complete or as conclusive as might be wished.

New Methods of Treating Erysipelas.

The *Bulletin Médical*, May 28, 1890, contains a brief review of some of the more recent methods of treating erysipelas, which is sufficiently interesting to warrant reproduction.

Rosenbach's method consists in first washing with soap, not only the erysipelatous area but also all the surrounding surface of the skin, and the bathing of the same parts every day with a five per cent. solution of carbolic acid in absolute alcohol. Brilliant results are reported, not only as regards the progress of the disease but also in controlling the febrile phenomena. Absolute alcohol alone is said to have produced favorable results.

Nolte paints twice a day all the diseased surface, and for an inch around it, with a mucilage of gum arabic mixed with three or five per cent. of carbolic acid. Good results are reported. Ebstein mixes the carbolic acid with vaseline.

Koch applies with a soft brush a thin layer of the following ointment:

℞ Creolin . . . . . gr. xv
Iodoform . . . . . ʒi
Lanolin . . . . . gr. cl

The parts are then covered with a sheet of gutta-percha. It is said to give good results especially in erysipelas of the face and of the hairy parts.

Nussbaum and Brunn employ ichthyol, with or without collodion. The results are said to be both favorable and prompt.

Hallopeau saturates several thicknesses of muslin with a solution of one part in twenty of salicylate of soda, and applies the muslin to the affected parts as a mask. Over this is placed rubber plaster to prevent evaporation. Relief is said to be almost immediate, and recovery to occur from the third to the fifth day.

Hueter's method strikes me as heroic. He employs injections of diluted carbolic acid into the healthy skin, in amounts of ten to fifteen grams, divided into several injections. These are made at a distance of one-third or half an inch from the edge of the diseased part. The following solution, freshly prepared, is the one used:

℞ Acidi carbol. puri
Alcoholis absoluti . . . . . aā ♏ xlv
Aq. destill. . . . . f℥iii

This method is very painful, and is applicable only to grave cases of erysipelas of the face and hairy parts.

Kraske scarifies the edges of the erysipelatous patch before applying to it the antiseptic substance. Lauenstein's advice is to limit incision exclusively to the healthy skin, and then to cover the parts up with dressings moist with a solution of carbolic acid or corrosive sublimate.

The method of Wolfler consists of mechanical compression by means of strips of adhesive plaster applied upon the healthy skin at the margins of the diseased parts, so as to circumscribe the latter completely. Kroell proposes the use of rubber tubes or bands in place of adhesive plaster.

Execution by Electricity.

Dr. C. F. MacDonald, President of the State Commission in Lunacy, on October 8, made a report to Governor Hill, of New York, on the execution of Wm. Kemmler. He asserts that death was sudden and painless, and that despite all hostile criticism the first execution by electricity was a successful experiment and will be regarded in the future as a step in the direction of a higher civilization, being infinitely preferable to hanging.

He recommends that there be but one electrical plant, located in the centre of the State, with a competent electrician in charge; that there be especially constructed apparatus of at least 3,000-volt power, which will do no injustice to any electrical lighting company, as would be the case with commercial dynamos; that the voltage employed should not be less than 1,500 nor more than 2,000; that a careful record be kept of every point, and that an official report to the Governor be made within 10 days after the execution.

NEWS.

—Dr. Walter D. Green has removed from 214 South Fifteenth street, to 131 South Fifteenth street, Philadelphia.

—A committee has been appointed by the Philadelphia County Medical Society to draft a law that will restrict the practice of hypnotism to its legitimate channels.

—Dr. James Farrar Stone has just completed a new building for the physical training school and gymnasium for women and children at 1808 Green street, Philadelphia.

—Dr. William A. Edwards, formerly of Philadelphia, and now of San Diego, California, was married, October 6, to Frances Louise, daughter of Mr. and Mrs. Alfonso Taft.

—It is reported that Dr. Roberts Bartholow will shortly resign the Chair of Therapeutics at the Jefferson Medical College, and this is said to be on account of incapacity caused by overwork.

—Pestonjle Hormusjle Cama, the philanthropist who founded the Cama Hospital at Bombay, has given 25,000 rupees to the Bombay University, in order to encourage medical education among women.

—Dr. Henry McGonegal, who was recently convicted in New York of manslaughter in causing the death of Annie Goodwin by malpractice, was sentenced on October 15 to fourteen years imprisonment.

—The Kensington Hospital for Women, in Philadelphia, has just purchased a large building at No. 136 Diamond street, which will permit the accommodation of twice as many patients as the Hospital can now admit.

—A young woman twenty years old, died in Brooklyn, October 14, from malpractice. It is said that she procured medicine on a prescription furnished by a Brooklyn physician, and that this medicine is to be analyzed.

—A number of New York medical practitioners are said to have organized a Physicians' Musical Club. The Philadelphia *Ledger* commenting on this fact says that "each member should compose some fresh air for the sick-room."

—One of Reed & Carnrick's extensive factories at Goshen, N. Y., was destroyed by fire on September 10. This factory which was devoted wholly to the production of their Soluble Food and Lacto-Preparata will be rebuilt three times the size of the one burned, with machinery correspondingly enlarged.

MEDICAL AND SURGICAL REPORTER

No. 1757. PHILADELPHIA, NOVEMBER 1, 1890. VOL. LXIII.—No. 18.

CLINICAL LECTURE.

PURPURA SIMPLEX.—DIAGNOSIS OF GASTRIC DISORDERS.

BY JOHN H. MUSSER, M. D.,

ASSISTANT PROFESSOR OF CLINICAL MEDICINE, UNIVERSITY OF PENNSYLVANIA; VISITING PHYSICIAN TO THE PHILADELPHIA HOSPITAL.

Gentlemen: I will change the regular order of my series of lectures, so that I may present to you a case of some interest, the features of which are ripe for illustration. I will preface my remarks by saying that the different cases I had before you last week are in about the same condition as then. The woman with ascites, who was suffering with severe abdominal pains, has been relieved by the use of codeia, which Dr. Lauder Brunton has found to be a remedy of extreme value in cases of abdominal pain. Opiates constipate, and in the large majority of instances of abdominal disease it is not desirable to produce constipation, and therefore codeia, which does not possess this property along with its analgesic property, may be used. It is given in doses of one-quarter of a grain every three hours. Brunton's method is to begin with small doses, gradually increasing the size, until the patient is relieved of pain. One and a half to two grains may be given every one, two or three hours in the most urgent cases of pain, as in carcinoma, entire relief ensuing. Even the pain of peritonitis may be thus treated, where it is especially desirable to avoid the use of opiates.

Purpura Simplex.

I wish to call your attention now to the appearance of this patient's legs. Yesterday and the day before the eruption with which they are covered was more brilliant than it is to-day. He states that three weeks ago, after a fall (which was merely a coincidence), he noticed some spots on his legs similar to these, but not so extensive. He was admitted to the house three days ago, when, in addition to the rash which was confined to the limbs, he was complaining of pain in his joints, and particularly in the right knee, which was quite tender on pressure. On examining the rash we find that it does not disappear on pressure, and that the surface of the skin is smooth. In other words, the appearance is due to ecchymoses or subcutaneous hemorrhages; and it is a case of purpura. Purpura is a general term for a disease and a symptom, and its presence may be due to quite a number of pathological antecedents. Thus it is a common manifestation of scurvy. It is of most common occurrence in the blood affections, as in the later stages of Hodgkin's disease, and in leucocythemia. It also occurs and has been described in general malignant sarcoma, in septic or ulcerative endocarditis, and in the grave fevers. As a disease, it is known by two or three different terms. Thus we have simple purpura, or purpura simplex; then there is purpura rheumatica, which is accompanied by rheumatoid symptoms; and the graver form, known as purpura hemorrhagica, or "morbus maculosus Werlhofii." In studying the patient before us, we must endeavor to ascertain whether his is a case of symptomatic or of true purpura. From our examination of him, and from the history which he gives, we may at once exclude malignant sarcoma, leucocythemia, the anemias and diseases of the endocardium, the organs usually involved in these affections being free from disease. Scurvy, a very common condition, the cause of which is familiar to us all, is usually found in sailors who have been long at sea upon a limited diet; but at times it is seen in isolated cases on land, or in the form of epidemics in institutions such as this.

Is this a case of scurvy? In the first

[1] Delivered at the Philadelphia Hospital.

place this patient has not been in any institution, and he is not a sailor, nor has his mode of living and particularly his class of food been such as to have produced scurvy. Then scurvy is usually associated with clinical features which are not present in this case. It is a slow disease, while this man's trouble developed suddenly. Then, in scurvy the patient is emaciated, weak, and pallid, presenting a cachectic appearance, with poor circulation, bluish lips, dusky cheeks, small and feeble pulse, and weakness of the heart's action. These usually appear before there are any outward manifestations of the disease. Then follows an inflammation of the gums, their margin becoming the seat of redness and ulceration. They recede from the teeth, and are soft and spongy, bleeding easily. The mouth itself is very sore. This condition of the gums is not present where teeth are missing, and infants when suffering from scurvy never present this affection of the gums. At the same time with this change in the gums subcutaneous hemorrhages occur. At first these are bright, rarely so large as this man shows, and they have the characteristic of developing around the hair follicles, and therefore present a papular feel. This is an anatomical distinction between the purpura of scurvy and simple purpura. This papular sensation may be felt in hemorrhages due to infarcts. The eruption of scurvy does not appear so suddenly, and become uniform so rapidly as does that of simple purpura. In the latter disease the patient will be ill and complaining for two or three days, and then in a few hours the rash will appear, in cases of rheumatic purpura often covering the whole body. On the other hand prolonged failure of health with a gradual onset of the eruption is characteristic of scurvy. In scurvy there is a brawny induration of the muscles, due probably to hemorrhages into their tissues, which is not present in this case. In scurvy there is a quite marked œdema, and the general nutrition of the skin is poor, it being dry and scaly.

This patient shows none of these symptoms as you well see, we may therefore exclude the presence of scurvy. We find on examination some pain, with tenderness in the joints. This is a symptom present in most forms of purpura, and is due to hemorrhage in the synovial membrane. In the rheumatic forms it is often very severe, and is accompanied by stiffness and swelling of the joints.

There are other eruptions, due to the exhibition of drugs which are very similar to that of purpura. Potasium iodide, for instance, in large doses produces an eruption, which is not confined to the limbs, however, but appears all over the body, particularly over the trunk, and which curiously enough often is very painful and tender. A rash also develops in the administration of copaiba. I recall one or two instances where the patients were much alarmed by the sudden development of a purpuric rash after they had been taking copaiba. A scarlatineal rash also often follows the administration of this drug. The drugs mentioned are most liable to be followed by subcutaneous hemorrhages, and as they are often taken secretly for obvious reasons, the fact should be borne in mind. This patient says that the rash intermits, one crop fading away only to be followed by another. This peculiarity is found more particularly in purpura than in scurvy, where the rash is a persistent one. From all of the symptoms I have given to you, I believe that this is a case of simple purpura, notwithstanding the presence of the pain in the joints. This, I believe, would be more severe, were it a case of rheumatic purpura.

Purpura sometimes develops very curiously. For instance, a case occurred in my practice not very long ago, of a middle aged woman who was suffering with severe and repeated hemorrhages from her stomach. There was no evidence of malignant disease of the stomach, nor any symptom of gastric ulcer. The cause of this repeated and persistent hemorrhage was obscure. I washed out the stomach and examined the gastric secretion, but with negative results. The patient soon became exhausted. Hysterical hemorrhages were eliminated. Finally, subcutaneous hemorrhages were noticed, and then general hemorrhages upon the mucous membranes, and death soon followed from a large hemorrhage behind the peritoneum, filling up the space as far as the diaphragm. No organic disease was discovered at the autopsy. The hemorrhage from the stomach took place from a minute ulcer at the gastric end of the œsophagus. The lesson taught by this case is the necessity of suspecting the existence of purpura in cases of hemorrhage arising from no recognizable cause.

Diagnosis of Gastric Disorders.

I wish now to continue our study of some gastric conditions. The patient I had

before you at the last clinic, you remember showed progressive emaciation, while on physical examination we could determine a tumor in the left hypogastrium and presumably attached to the stomach. He presented some dyspeptic symptoms, but there was no pain or tenderness, no vomiting, no hemorrhage. To determine whether or not organic disease exists, certain methods, largely chemical in their nature, are employed. By means of these we are able to determine the ability of the stomach to digest, and the motor power of the stomach, and to discover whether there is the necessary acid present in the gastric juice. You remember I showed you, by means of the administration of salol, that the motor activity of the stomach was lessened. Instead of appearing in the urine in one hour after its administration, which it would have done had the motor power of the stomach been up to the normal, three and a half hours elapsed before its appearance. These tests determine whether there is a functional or an organic disease of the viscus present, and thus far we had ascertained that this organic disease was present, namely, a reduction in the muscular power of the organ.

Next we must examine the gastric juice for the presence of hydrochloric and lactic acids. Hydrochloric acid in large quantity is as much indicative of organic disease as is its absence pathognomonic of carcinoma of the stomach. There are several methods by which the hydrochloric acid is found in the stomach. We must first secure some of the juice. A trial breakfast is given, and in three hours the secretion is taken from the stomach. Formerly the vomited matter was used, but so many disturbing factors were found to be present that a sufficiently accurate reaction could not be obtained. At present the secretion is withdrawn by the stomach-pump, or by means of the syphon alone, when digestion is at its height, normally in three hours after the administration of food. We first determine its reaction, whether acid or alkaline. We then determine which acid is present, hydrochloric or lactic. There are two methods of testing for the presence of lactic acid. The one is very complicated and the other simple, the so-called *Uffelman's test.* In this we use a four per cent. solution of carbolic acid, to which a few drops of neutral ferric chloride is added, producing a steel-blue liquid. A few drops of gastric juice added to this discolorizes the solution, if hydrochloric acid be present. If lactic acid be present, it produces a yellow coloration, and if it is in excess, a reddish yellow. If lactic acid alone is present, a greenish tint will be produced. In examining for hydrochloric acid we may employ the methyl violet and the gentian violet methods. The former gives a greenish blue coloration, if the acid be present.

This man's gastric juice has been examined, and shows a minimum amount of hydrochloric acid. Even yet we cannot decide positively that carcinoma is present, though the association of a diminution in the muscular power, and the diminution in the amount of hydrochloric acid shows that some grave organic trouble of the stomach is present. In grave gastric catarrh there is also a diminution in the amount of this acid, but there would also be more marked symptoms in that condition than are here present. I fear there is grave malignant disease here.

Carcinoma is a local disease affecting either the cardiac or pyloric ends of the stomach, or either curvature. It is not the cancer by itself which causes the symptoms, but they are determined to the localization of the disease, hence the symptoms vary with the position of the growth. It may occur in the lesser curvature without any symptom being observed. Pain is a general symptom of cancer, depending upon whether there is an obstruction or a localized peritonitis. It may be altogether absent if the ulceration be slight. Hemorrhage may also be absent if the growth be not especially vascular. Thus we may have cancer of the stomach existing without any of its cardinal symptoms. Emaciation and cachexia are always present, the cause of the latter, however, not being known. It is thought to be due to an involvement of the liver; but we find it where the liver is not affected. Understanding, then, how carcinoma may exist without its presence even being suspected, or discovered until it is revealed at the autopsy, it is important that the chemical means I have mentioned be resorted to, to aid us in making a diagnosis in obscure cases.

—Oil of sandal wood was first employed by the Chinese, and they as well as the Hindoos give preference to that produced at Mysore. This variety has been found best by European practitioners also.

COMMUNICATIONS.

DENGUE FEVER.[1]

BY ALBERT J. HAHN, M. D.,

NEWARK, N. J.

About five years ago, to effect a change of climate, I went to Texas, and it was but a short time after the re-establishment of my Penates in their proper place, that the member of my family for whose benefit the change had been made was taken ill. General malaise of a few hours' duration was followed by an alternation of chilly shudderings and flashes of heat, a certain amount of stiffness and pain in the muscles of the occipito-spinal region and sacrum, and more severe pains in the joints.

I attributed the ailment partly to a process of acclimatization and partly to the influence of malarial miasmata, gratuitously bestowed upon the new-comer by a little lazily running brook, whose banks were beautifully covered by fig-trees, banana-plants, gigantic reeds, and a great variety of luxuriant exotic plants and weeds; and I treated the case as mainly malarial in its aspect, although my efforts in that direction were not as successful as I had expected.

A few days later I was called to a cottage only a few hundred yards distant on the other side of the brook, by the natives euphoniously called river, because it contained a little water, which is more than can be said of most Texas rivers. I had hardly entered the house and been made acquainted with my patient, when she informed me she had the dengue, and wished me to relieve her at once of those horrible pains in the joints. I was momentarily perplexed. Here was a patient; she had made her own diagnosis, and I did not dare to contradict, in fact I readily and quietly assented. Since the final review for graduation-examinations of my text-book, in which dengue occupied the very tail-end, I had not been reminded of its existence until I was now suddenly and unexpectedly confronted with its reality for the first time—or rather the second, for the first time in my family I had not recognized it.

The term dengue has been applied to an acute febrile condition, accompanied by an eruption, lasting from five to eight days, and occurring in hot climates. The name "dengue" is said to be derived from the Spanish "Dunga," a corruption by the Cubans of the term "Dandy" fever, which latter appellation the affection received from the English negroes at St. Thomas, on account of the peculiar stiff gait of those attacked by the disease. Different writers, however, gave the fever different names, according to their individual real or fancied impression as to cause, prominent symptoms, or locality where it occurred or whence it was imported. Thus we have as the more prominent ones the synonyms of: African fever, Aden fever, Arabian fever, scarlatina rheumatica, break-bone fever, giraffe fever, eruptive epidemic fever of India, etc., etc. Dengue has occurred epidemically and sporadically in India, Persia, Arabia, Egypt, the West Indian Islands, and North and South America; but its history can be traced only to the latter part of the 18th century. The first description of the disease is by Dr. Rush, of Philadelphia, of the epidemic of 1780. Dr. Aitkens records the epidemic at Calcutta in 1824, in which but few persons out of half a million escaped the affection. In 1827 an epidemic broke out in St. Thomas, and after having given a test of its powers to every inhabitant, it visited successively the various islands of the West Indies, and came the following year to the United States, where it raged epidemically throughout the South, and sporadically as far North as New York and Boston, where many cases occurred. This epidemic was most accurately described by Dr. Samuel Henry Dickson, of Charleston, S. C. In 1850 an epidemic visited the Southern States which was well described by Drs. Wragg, of Charleston, S. C., and H. F. Campbell, of Augusta, Ga. Again in 1873 an epidemic visited the Gulf States, at which time in New Orleans fully 40,000 people were affected by the disease within a few weeks. The most recent and widespread epidemic was that of 1880. It covered all the Southern States of North America. At the same time the fever broke out at Cairo, whence it spread all over Egypt.

To trace, however, definitely the source of the latter epidemic in this country has proved a failure. To prove the origin of dengue fever has also been unsuccessful. All agree that dengue greatly depends upon climate, seasons and atmospheric conditions; all agree that dengue is an infectious fever; but whether it is also contagious in character the historians upon the various epidemics

[1] Read before the Practitioners' Club.

leave, by virtue of their totally diversified opinions, an entirely unsettled question.

Dengue, as a rule, makes its appearance abruptly, although a general malaise of a very short duration may initiate the fever. The person may enjoy the very best of health, when suddenly severe frontal headache, aching of the eyeballs, nausea, chilliness, with occasional flashes of heat, and pains in the limbs, set in. There is rarely a distinct chill, but more often chilly shudderings passing down the muscles of the spine. The cephalalgia is intense, and soon the muscles of the occipito-spinal region become stiff, and the pains in the joints, resembling those of articular rheumatism, reach their highest point of intensity with the height of the pyrexia. The temperature ranges from 101° to 106°, and proportionate is the general suffering of the patient. The pulse, bounding and full, runs from 90 to 140 per minute. The very height is usually reached at the end of the first twenty-four hours; after which time the disturbance of the temperature and pulse, and the other symptoms, gradually decline, manifesting, however, in the evening of each day a slight aggravation over the conditions of the morning. In addition to the above symptoms, hemorrhagic tendencies are manifest, such as epistaxis, and bleeding from the gums and rectum, and, in severe cases, hematuria and hemoptysis. Glandular enlargements are very common. The glands most commonly affected are the lymphatic glands in the groin, axilla and neck; and these enlargements are apt to continue for weeks and even months after disappearance of the dengue. Anorexia is the rule, and often there is general gastric disturbances, gastralgia, vomiting and diarrhœa, and jaundice; in the latter half of the disease when the pyrexia has commenced to decline, an eruption makes its appearance on various parts of the body. It may resemble erythema, lichen, rubeola, urticaria, etc., but more commonly it resembles the rash of scarlatina. Desquamation follows in some cases after the lapse of a few days. Insomnia may be an annoying and persistent symptom.

An attack of dengue lasts from five to eight days, and, while in some cases the patient may feel just as well immediately after the attack, in most cases the effects will be felt for weeks thereafter. The pains in dengue are of such a severe nature, that the disease has been termed the sum total of human misery; but cases of an exceedingly mild character in all its symptoms are not wanting. Relapses occur occasionally after the second or third week; but these are usually of a mild type and brief in duration.

As dengue is an entirely non-fatal disease, its pathology is wholly unknown, and its prognosis is always favorable, except in the very feeble ones at the extremes of ages, the exceedingly young or very old; for dengue excepts no age or sex. When death does occur, it is always due to some fatal complication, such as severe hemorrhage, convulsions, abortion or some intercurrent disease.

When we attempt to describe the differential diagnosis of dengue, we are in the first place confronted with yellow fever; for these two have, besides the climate and localities, various features and characteristics in common, so much so in fact that the unicists here—as in the case of diphtheria and membranous croup—have among their advocates, ever since Dr. Osgood, in 1828, promulgated this theory of unity, counted some of the most reputable physicians who had obtained their observations at the bedside of the afflicted. According to Dr. Eugene Foster, of Augusta, Ga., who gathered a vast experience in the epidemic of 1880, the more important points of similarity and dissimilarity are these: dengue has prevailed over Egypt, Asia and India where yellow fever is unknown. Both are arrested by frost. The fever in dengue rises regularly until the acme is reached, remains stationary for a few hours, and then gradually declines. In yellow fever the temperature rises steadily. In dengue the pulse rises in proportion to the temperature, in yellow fever the pulse becomes slower while the temperature rises. The duration of the fever in dengue is from five to eight days, in yellow fever it is seventy-two hours. Vomiting is rare in dengue and frequent in yellow fever. Albuminuria is the rule in yellow fever, the exception in dengue. Hemorrhages in yellow fever are more frequent and copious, especially the hematemesis (black vomit). Dengue is proverbially a non-fatal disease, while yellow fever is very fatal. One attack of dengue is not protective against a second attack nor against yellow fever, and the latter not against dengue, but one attack of yellow fever is usually protective against a second attack.

Dengue and malarial fevers might possibly be confounded, and no doubt in light cases are, for many of the so-called dengue-fever cases occurring at non-epidemic times

are often nothing but malarial fevers. The two fevers have certainly the time of prevalence and geographical distribution in common. The temperature, the eruption and the glandular enlargements in dengue will establish the diagnosis.

From articular rheumatism, dengue is to be distinguished by the fact that in dengue the swelling is peri-articular and attacks also the head, back, etc. In rheumatism we have intra-articular effusions. The heart is never affected in dengue. The glandular enlargement and eruption of dengue will also help to decide the case.

From scarlatina, dengue may be diagnosticated by its articular pains, enlargement of glands and diversified eruption.

A very interesting question presents itself, whether or not our last epidemic visitor, *la grippe*, and the dengue are one and the same. They have a great many symptoms in common; they both are sudden in their attacks; the prostration, cephalalgia and pains in the back and limbs are about the same in both; and the eruption is not uniform in either. The main point of difference between the two lies in the fact that in dengue the symptoms of disorders of the digestive organs prevail, while in *la grippe* the catarrhal symptoms of the air-passages are most prominent. Whether the well-known fact that the diseases of the digestive organs of hot climates correspond to those of the respiratory organs of the colder climates or seasons can be held accountable for this fact, is difficult to decide.

Allow me now to cite two of my cases which occurred to me during my Southern activity.

September 11, 1885, R. F., 48 years old, laborer, who had had dengue in 1866, in New Orleans, and yellow fever in 1876, was suddenly taken with severe frontal headache and pains in the whole body. He had felt slightly chilly previously. His temperature was 103½° and his pulse 120. The next day his pains were severe in all the joints—he had a burning sensation about the sacrum, with nausea, a slightly sore throat, no thirst, a tongue dry, red and glazed. His bowels were normal and his mind was clear. September 13, his skin was very dry, his tongue about the same as the day before. He had vomited once during the night, a very greenish mixture, and felt very sore in the back. He was sleepless and restless, and his face and eyes were flushed. His temperature was 103°, and his pulse was 120. September 14, his temperature was 102°, his pulse 108, and his tongue was slightly moist, but still red. He had a severe attack of epistaxis and several copious watery stools. His pains were much less severe, but he was still very restless. An urticarial eruption was seen on his body and limbs. September 15, his temperature was 100°, his pulse 80, and he felt fairly comfortable and made a ready recovery.

October 8, S. N., a woman thirty-two years old, had felt badly for the last two days—but on this day got pains in her joints and back. Her pulse was 96, her temperature 102°. The next day her pain had increased; she had alternate chills and heat flashes, and was very restless—she had itching over her whole body. Her temperature was 104°, her pulse 120; her tongue was dry with red stripes at the edges. At 6 P. M. she had had several attacks of copious nose-bleeding—she had soreness in the stomach and much pain along the spine. On October 10, her temperature fell one degree. Her menses had appeared the night before—one week ahead of time. She felt very weak and faint. She had patches resembling a scarlatinous rash on her body. Her lips were covered with fever-blisters, and she had a tendency to diarrhœa. On October 11, her temperature was 101°, her pulse 100. She suffered but little, but insomnia was persistent, her eyes and temples and body were slightly jaundiced. She had no more epistaxis, but severe uterine hemorrhage. On October 12, her temperature was 99½°, her pulse 90. She had not yet slept; otherwise she felt much better, although she still had slight aches along the spine. Her uterine flow had decreased much in quantity. On October 13, she was convalescent, the jaundice had disappeared, except from her eyes. By October 14, there was light desquamation of those places where the eruption had occurred.

In concluding this theme I will state that I have seen, and no doubt the gentlemen present likewise, during the spring and summer, here in Newark, a great many cases, which, for want of a better name, I called malarial, but which, had they occurred in a tropical climate would have been termed slight attacks of dengue, and under the proper conditions of heat and soil might have developed into good specimens; while on the other hand the slight attacks of Southern dengue we would up here call simply malarial fever. There is nothing in

a name. The symptoms to which I refer, and which were with very few exceptions not all present in every patient, were in the aggregation the following: General malaise, alternate cold and heat flashes, aching of the eyeballs, pains in the back, stiffness of the occipito-spinal muscles, pain and stiffness more or less severe in the limbs and joints, that could not always be accounted for as rheumatic, even cases with epistaxis, and spitting of blood in tubercular subjects, gastric disturbances, bronchial troubles, sore throat, and an itching eruption in some cases.

Take these symptoms in all, with the ensuing pyrexia, the chilly sensations of a severer and steadier nature, and the accompanying symptoms of correlative aggravation, and I cannot see what is lacking to make it, if not a case of dengue, as close a relative to it as is possible.

THE ORIGIN OF EPIDEMICS.

BY G. W. FUREY, M. D.,
SUNBURY, PA.

Believing that scientific medicine is not limited or circumscribed, and that it may use any facts in its mission to better mankind, I would like to call attention to the relation between disease and certain conditions which are especially the object of study in that branch of science called meteorology. We are all interested in the weather, the climate, and the various conditions belonging to our aërial environment. We notice aërobic micro-organisms dependent upon favorable conditions of the atmosphere for their life, their development and their dissemination. We realize the benefits of a proper adaptation of climate to the wants of our patients and are careful to guard them from the ill effects of sudden changes of weather. We observe epizoötics, such as pink-eye, *la grippe*, catarrhal fever, chicken cholera, horse and cattle distempers following each other around the world. Within ten short years we have seen local rains and floods, cyclones and tornadoes, cease to be classed with exceptional and phenomenal occurrences in our Eastern States; and we have watched the thermometer go up until it registers a mean temperature higher than known to the memory of man, with our winters growing warmer and our summers cooler, our rain belt changed and localized, and the rainfall greatly increased.

It has been proved that the temperature at the earth's surface is dependent upon conditions of the atmosphere, and that the universal tropical climate that produced the Coal Age was not due to the earth's internal heat. If we briefly examine the Coal Age we may be enlightened and assisted in our investigations. Enormous quantities of carbon dioxide mingled with the air of that period. The surface of the earth was more level than at present, giving a greater ocean area, much of which was shallow marsh, in which grew the great flora of the Age. Inhaling and storing up the carbon of the dioxide as woody fibre, it exhaled into the atmosphere vast quantities of oxygen, and thus prepared the air for the existence of man. When the air had at last become respirable and the general contour of the earth correspondingly adapted to the use of man, all but a necessary amount of this carbon dioxide had been withdrawn from the air, and was hidden away beneath the limestone and other rocks of a subsequent period, in the forms of coal, petroleum, and natural gas.

Glass transmits "luminous" heat and is impervious to the passage of obscure, or "dark" heat. It is thus we prepare our garden hothouse or conservatory. Light heat from the sun enters the conservatory, is changed to dark heat, within, and retained by the imperviousness of the glass to that kind of heat. Among the compound gases we find that carbon dioxide, in its relation to the transmission of heat, has the same properties as glass, transmitting luminous heat and reflecting dark heat.

Man has consumed the forests. Each year he mines, in the United States alone, two hundred millions of tons of coal. He has tapped the tanks of petroleum and the founts of gas, and is oxidizing it all—all that vast quantity of carbon—converting it into carbon dioxide. The chimneys, laboratories and furnaces of civilization have been, for a hundred years, oxidizing carbon in the open air. The respiration of animal life has been oxidizing carbon all these ages, and now we find that the product has accumulated over the surface of the earth and is wielding an influence that is assimilating our climatic conditions more and more to those of the age of coal, approximating extremes, so that May weather has been known to temper the rigors of January and

"cool waves" to fan the sweltering summer.

There are a few deep, narrow valleys that have long been known as uninhabitable, because of the accumulation of deadly amounts of carbon dioxide at their bottoms; but more recently, since the increase in the combustion of coal, oil and gas, when every valley has its railroad and every hamlet is a manufacturing centre, perceptible quantities of this carbon dioxide have settled down in all the valleys and are becoming more manifest to us as they exert an influence upon the phenomena of the weather and the climate. Within a year and a half the eastern part of the country has been visited by local floods, the like of which have never been known before, and two of our inland cities have been devastated by cyclones which surpass any that have ever been known in all the land. Of the cyclone which swept through the city of Wilkes-Barre a few weeks ago, the papers said at the time: "This cyclone was born right here in the Wyoming Valley. Tuesday had been a muggy day." "Cyclones are not understood." "The Signal Service knew nothing about the beginning of this storm."

Wyoming Valley is about twenty miles long and about three or four miles wide, surrounded by high mountains, with Wilkes-Barre in its middle. "The weather was muggy" for days, not only in this valley but also generally throughout the East. The air was at rest, so that any accumulation of carbon dioxide that was in the valley, where vast amounts are constantly being produced, had settled down and spread out, forming an envelopment of the whole surface. At ordinary temperatures carbon dioxide is several times heavier than air; but it possesses the property of absorbing ninety times more heat than air possesses; so that its expansion will be relatively greater, and when slightly heated it becomes lighter than air. Now, over this carbon-invested valley the sun had been shining fiercely all the day. Its luminous rays had been transmitted through the layer of carbon dioxide, imparting to it some warmth, causing expansion—rarification. It rose up a little from the ground, and air took its place. Light heat streamed through and was changed beneath to dark heat, and it absorbed more heat, became lighter and rose higher, arching over the valley from side to side, and above the city, held down by its own weight and that of the super-incumbent column of air, and pressed upward by its own lightness and the enormous expansion going on in the natural greenhouse below, where the "muggy" humid air was storing up as dark heat the enormous inpour of light heat of that long summer day.

As the sun was declining in the West, something happened in the vicinity of the city; some inequality occurred in the equilibrium that had lasted since morning, some untoward shaft of heat from below, perhaps, shot upwards, adding to the pressure already there; a small area of the envelope was forced suddenly up, a rift was made, and through it rushed the pent up expansion from below.

This instituted a column of escape with its apex ascending. To fill the threatened vacuum, its apex downwards, rushed a cold column from above. Below the envelope of carbon dioxide, it met with and became part of a heterogeneous atmosphere made up of air, smoke, dust and vapor of water. Meeting thus, under great pressure, heat was lost and taken; contraction and condensation suddenly followed; the tendency to a vacuum was increased, and violent motion was engendered. Conforming with the nebular law, a rotatory movement was assumed by the column of descending vapor; in phalanx the two columns, the hindermost invisible and the foremost enwrapped in a black, funnel-shaped cloud, as a cyclone it struck the edge of the city and mowed its swath of desolution across. Here is a clipping from a paper on the subject: "The large column that moved ahead of the débris seemed three or four hundred feet high and seemed yards in diameter. The roofs, timber, fences and trees were swept along behind like feathers in the wind." The statement by an eye-witness confirms so much of our theory. It was the advance column, the funnel-shaped cloud, that beat down and twisted to pieces the buildings and fences, while the ascending column swept them along like feathers in the wind.

I advance the theory, that the increased amounts of carbon dioxide that have gathered from all sources into our atmosphere produce, as I have described, the change in the weather and climate of recent years and that the alarming frequency with which new species of disease germs have been manifested in strange epidemics lately are consequent upon the same conditions and not merely coincident with them. It has long been known that yellow fever mi-

crobes require a higher mean temperature for their development than do those of other forms of disease.

It is supposed that *la grippe* of last winter sprang into sudden being from a small neighborhood in Russia, for the reason that its specific germs, because of propitious surroundings, shook off the lethargy of their "sleep of ages." Now, if this be probable, who can doubt that there may be lying dormant somewhere, awaiting a similar development, aërobic genera, that lay down to rest long ago, when prehistoric man and the mammoth became extinct.

If space would permit, many facts and suggestions that have come to my mind could be presented to strengthen or corroborate the theory. Here is a sample of what is becoming familiar to the newspaper reader of to-day. A newspaper speaks of a "Strange Disease among Cattle," as follows: "Marshall, Mo., August 27, 1890. John Nicely, a prominent farmer near Arrow Rock, reports a new and strange disease among his cattle, etc., etc."

However right or wrong my theory may be, it is my opinion that "above the clouds" is not the place to view the coming storm. Some one, groping near the surface and the facts, down where disease germs and cyclones work their mischief, will one day read aright the complex signs of epidemics now incomprehensible.

NASAL CATARRH.[1]

BY HOMER M. THOMAS, A. M., M. D.,
CHICAGO.

The internal covering of the nasal fossæ consists of a mucous membrane called the pituitary, from the nature of its secretion; also the Schneiderian, from Schneider, the first anatomist who showed that the secretion proceeded from the mucous membrane and not, as formerly supposed, from the brain. The mucous membrane is intimately adherent to the periosteum, or perichondrium, over which it lies. It is continuous externally with the skin, through the anterior nares, and with the mucous membrane of the pharynx, through the posterior nares. The mucous membrane is thickest and most vascular over the turbinate bones; it is also thick over the septum, but in the intervals between the spongy bones, it is very thin. This membrane is provided with a nearly continuous layer of branched mucous glands, the ducts of which open upon its surface. Under normal conditions, nasal mucus is very viscid, slightly opaque and strongly alkaline; it always contains some columnar epithelium; its composition is principally water, of which in 1,000 parts there are nine hundred and thirty-three, also, mucosine fifty-three (53), chloride of sodium and potassium five, calcareous and alkaline phosphates three, and some lactate of soda. The smooth, viscid and adhesive character of mucus which forms a coating for the mucous membrane, serves to protect its parts, enables their surfaces to move freely one upon the other, and modifies the process of absorption. It is to a common and very general disease of this mucous membrane, viz.: nasal catarrh, that I wish to call your attention.

The physiology of the nasal passages should as constantly be borne in mind as that of any other structure of the body. Respiration in health is carried on almost exclusively through the nasal passages. The ciliated structures lining these passages serve to arrest the ingress of various irritating substances in the respired air. The surface is covered with a delicate network of blood-vessels, with a large vascular and nervous supply, which raises the temperature of the respired air to a warmth suitable for the throat and lung passages. In an outside temperature of fifty degrees Fahr., the air, in its passages through the nose, is raised to 88°. Any process which interferes with this natural function is a cause of nasal catarrh.

The etiology of this disease is of the greatest importance. A perfect understanding of its causes and mechanism is the goal of the pathologist. From the first cold of the infant, along through the various stages of chronic rhinitis, to define the changes taking place, describe the morbid anatomy, study the causes and observe its course to where we see many manifestations of abnormal action, helps us in directing its hygienic and therapeutic management. And first we may well ask, is heredity a factor in causing nasal catarrh? I think not. In many cases there is a marked coincidence; but not necessarily a related cause. The histological facts concerning cell life will prove a successful contravention to the theory of heredity. The living cell is composed of finely granular matter, called protoplasm.

[1] Read before the Chicago Pathological Society.

The cell has a nucleus which may be round, oval or irregular. In the interior of the nucleus are small bodies, called nucleus corpuscles. In its natural state it develops, on its surface, a membrane. The cell, according to Virchow, has a three-fold vital activity: 1. The nutritive, which displays activity for its own preservation; 2. The formative, showing an activity in its own propagation; 3. The functional, or its behavior in its outward relations to other parts. During the life of a normal cell, under normal circumstances, it displays no other kind of activity. Its component parts render it incapable of any other kind of activity, consequently there are no changes except the physiological ones. Nor can any combination of these three activities result in disease. If the cell maintains its normal surroundings, it will live out its physiological life and disappear according to the laws of its own existence. Nothing can change these activities, except what comes from without. The nature of the surrounding influences over cell life, whether single or joined to others, may be favorable or unfavorable to all of its three activities; but the influence of heredity must come from within, if it comes at all. The law of a cell's life contradicts this. There is no escape from this law. All inside influences are healthful. To some extent a cell is not affected by its surroundings, because of its own vital force; but this range of independence is limited. When the external conditions of cell life deviate from the normal, then disturbances of cell activity ensue and disease occurs. I think a broader interpretation of this law can make it apply to the question of heredity in lung disease, as well as in catarrh. I am satisfied much unnecessary apprehension exists in the minds of many patients on this point. The fact of a parent having phthisis is no tenable ground upon which to base an opinion that the disease is transmitted to the child. It may be a ground for suspicion, especially if the child is living under the same exciting causes as those which developed the disease in the parent. But that is as far as we are physiologically warranted in assigning heredity as a cause.

Inflammation of the mucous surfaces of the nasal passages is due to enlargement of their blood-vessels, and a great increase in their number. This increase is more apparent than real, for these vessels exist long prior to the apparent increase; but as they do not carry red blood corpuscles, they were not visible under the microscope. To permit the red blood corpuscles to flow through the vessels of a smaller caliber, the sympathetic nerves that control the muscles that surround this and other blood-vessels are debilitated. They are in a paretic condition. This condition is due to injury to the sensory nerves, principally by colds, also by other agents, such as tobacco, stimulants, strong irritating applications, etc. Unless the irritation were thus caused, the sensory nerves would not act reflexly upon the sympathetic nerves, causing a paretic condition. Because of this fact, there ensues such phenomena as inflammation, proliferation, hyperplasia, atrophy, œdema and ulceration. Without irritation, inflammation and its sequelæ cannot exist; hence every irritation produces more or less inflammation.

The etiology of nasal catarrh may be either local or exciting, predisposing or constitutional. As exciting causes may be mentioned the following: Getting the feet wet, standing or sitting for some time on a cold surface, exposure to night air insufficiently clad, changing beds from a warm to a damp room, mothers rising at night in the care of children, occupations with much dust, smoking, excessive moisture, sudden changes in the weather, dry, dusty atmospheres, insufficient clothing, slippers, hair clipping, cigarette smoking, mouth breathing, stimulants, etc. Bosworth has said that sealskin sacks have, in a given time, caused more deaths than small-pox. Among the constitutional causes are: rheumatism, malaria, measles, scarlatina, diphtheria, neurasthenia; while excessive fatigue, either mental or physical, by impairing the general health, places the system in a condition favorable to acquiring nasal catarrh.

There are three stages of nasal catarrh: 1, the dry stage, in which there is hyperemia, heat, redness, tumefaction, and pain in the mucous membrane; the mucous membrane being dry and dark-red in appearance; 2, the moist stage, which follows and supplements the first, with transudation of serum and white corpuscles into the connective tissue, cell proliferation, and organization of lymph, while the mucous follicles and glands are enlarged, distended and excessively active; 3, the purulent stage, marked by pathological conditions, denudation of the epithelium and the presence of a raw surface, while the excessive mucous secretion changes to a muco-purulent or pur-

ulent one. The presence of reflex eye symptoms in nasal disease is an interesting feature of it. Cases in which there exists a neurotic affection of the Eustachian tube of the left ear are often markedly relieved by spraying the nasal passage with vaseline. A certain group of eye symptoms, such as lachrymation, photophobia and conjunctival hyperemia, are observed in a number of patients who go to the rhinologist; and yet an examination of their eyes reveals no anomaly. The vision is normal, there is no eye strain, the conjunctivæ are healthy, and the tear ducts open. For such cases relief of the co-existing rhinal affection usually results in the cure of the eye trouble.

An interesting case was recently observed. A lady was troubled with severe hypertrophic rhinitis. The turbinate bones were well cauterized, and then the patient asked for relief for an eye trouble, stating that she had been unable to use her eyes more than five minutes at a time for the last three years. She was referred to an oculist that she might get relief. She returned to the physician's office in two weeks, and stated that she had not been to the oculist, but that the next day after her hypertrophies had been cauterized, she was able to read at night without affecting her eyes. Voltolini demonstrated that asthma may be relived by the removal of nasal polypi.

In the treatment of nasal catarrh the diseased secretion, which is always acrid, should be removed. If morbid growths are present, as they are also a source of irritation, they should be removed, thus checking the local source of inflammation. The new secretion which forms on the mucous surfaces should be prevented from becoming acrid, thus avoiding a recurrence of inflammation. Hygienic and sanative measures should be insisted upon. These prevent a continuance of irritation to the sensury nerves located on the surface of the body, and also to the mucous membranes, by colds and other irritating agents. You thus remove the originating causes of inflammation. Then, *vis medicatrix naturæ* performs the cure, if possible.

The basis of the successful treatment of nasal catarrh, is a thorough application of the principles of antiseptics. Given a case in which it is possible to efficiently medicate the anterior and posterior openings of the nasal passages as often as necessary, and in a great proportion of cases a cure will result. In order to accomplish this end, it is first necessary that the passages should permit a free entrance and exit of air during inspiration and expiration. Anything interfering with this normal function is the starting-point of the development of nasal catarrh. Conditions may exist in the nasal passages requiring surgical treatment, involving the straightening of a deflected septum, or the removal of portions of the superior turbinate bones. If an obstruction exists which interferes with free nasal respiration, there can be no successful treatment until the obstruction is removed. However, in examining the nasal passages, we may be led into the error of suspecting marked obstructions from the tortuous and irregular appearance of the passages upon rhinoscopic examination. It has been estimated that out of six hundred cases there were not over ten which presented perfectly straight and smooth passages. Hence internal deviations of the passages are not a source of disease, provided they do not interfere with perfect nasal respiration. I think a great deal of unnecessary surgery is done upon the nasal passages. It is attempted largely for the purpose of gratifying the ambition of the surgeon, and incidentally of affording some experimental relief to the patient. My experience is that the large proportion of cases do not require any surgical procedure.

The remedies advocated for the treatment of nasal catarrh have comprised almost the whole materia medica. They consist of strong astringents, strong solutions of nitrate of silver applied with a post-nasal syringe, sprays of the tincture of chloride of iron, tannic acid, etc. More extended experience in the treatment of this disease has simplified the treatment. At the outset we spray the nasal cavities with Dobell's solution, or with Listerine. Carl Seiler's antiseptic tablets are very effective. Having cleansed the nasal passages thoroughly we are now ready to apply the medicament. Where there is marked hypertrophy, the galvano-cautery should be used. You can use, about three times a week, a spray of vaseline in combination with tincture of iodine, or carbolic acid. Albolene is also an excellent medicament. Rhinal inflammation invariably commences on the superior and middle turbinate processes, and extends in all directions in the nasal passages and into the passages connected with them, except on the floor of the nasal passages or inferior nasal meatuses. The

under surfaces of the four diseased turbinate processes cannot be thoroughly cleansed or treated by the anterior nasal openings. To thoroughly treat these structures approach must be made by way of the posterior nasal openings. I have found the Starkey tip most excellently adapted to treating these surfaces.

A powder, which has been very satisfactory in its action on the mucous membranes of the nasal passages, consists of one grain each of borate and bicarbonate of soda, three grains of carbonate of magnesia, four grains of cocaine, and a sufficient quantity of the sugar of milk to make one hundred grains. This combination is efficient in allaying acute inflamatory attacks and also in temporarily relieving hypertrophies of the turbinated bones. I use it by insufflation both anteriorly and post-nasally. The physiological action of this powder seems to be due to its stimulation of the vaso-motor nerves, causing contraction of the vessels of the terminal bulbs of the peripheral nerves and diminishing their blood supply.

The local use of the various preparations of vaseline is necessary for the successful treatment of nasal catarrh. I have found useful the following preparations of vaseline: Vaseline pure, vaseline with eucalyptol, vaseline with gaultheria, vaseline with carbolic acid, vaseline with pinus Canadensis. An acute attack of nasal catarrh can sometimes be aborted by the internal administration of a quarter of a grain of morphia sulphate, and one one-hundred and fiftieth of a grain of atropia; in a very severe attack the dose can be increased to half a grain of morphia sulphate, and one one-hundredth of a grain of atropia. However, in spite of all we may do in the way of local medication for this affection, there are at times patients who do not improve as we would like them to do. If the history of such cases is carefully looked into, there will usually be found a diathetic condition at the bottom of the nasal trouble, the relief of which will cause a subsidence of the local inflammation. Thus a catarrhal condition frequently extends into the stomach and intestines, in which we have the combined symptoms of gastro-intestinal catarrh. When the nutritive system becomes deranged there are many sympathetic disturbances which follow.

Each case of nasal catarrh has its specific and special indication for treatment. As a rule, routine practice will not bring satisfactory results. By carefully analyzing all of the exciting causes present in each case, and efficiently directing our remedies to the relief of both general and local conditions, we are warranted in hoping for a successful termination in the treatment of a very large proportion of cases afflicted with nasal catarrh.

ADMINISTRATION OF MORPHINE BY THE NOSTRILS.[1]

BY CARL H. VON KLEIN, A. M., M. D.,
DAYTON, OHIO.

As a rule, where persons dislike the taste of morphia, or where it is desired to have a rapid physiological action, the hypodermic method of administration is resorted to. This method is open to the objection that it requires a small surgical operation and that this sometimes is followed by the formation of an abscess.

I desire now to describe a new method of administering morphia, namely, through the mucous membrane of the nose—a method which has been thoroughly tested by me in over one hundred cases, in which the immediate physiological action of morphia was necessary. I have found it to be reliable and more prompt in its action than the administration of the drug by the mouth or hypodermically. It requires much smaller doses than is requisite in dosing by the mouth, and no larger dose than is usual for hypodermic administration.

The manner of administering morphia through the olfactory canal is simply by causing it to be snuffed up the nasal chambers, in the same manner and in the same way as snuff-tobacco is used. The dose is divided into two equal parts, and each part is placed upon the end of the thumb and snuffed up into the nostril. The membrane being very soft and delicate it appears to be absorbed instantly. I have tried it on myself on several occasions and the absorption seemed almost instantaneous. Fifteen seconds after the introduction of the morphia, I have blown my nose; and nothing could be found in the secretion. However, in poor qualities of morphia, the drug will not be absorbed as readily.

In cases where the nasal chambers are covered by crusts or dry secretion the cavities

[1] Read before the American Rhinological Association, October, 1890.

should be cleansed before administering morphia, care being taken not to snuff it up too strongly. If the drug is of a poor quality it will produce sneezing; but the narcotic effect will be the same.

When morphia is administered in the manner I have just described, it is tasteless, its action is rapid and the narcotic effect lasts for a longer period than when this drug is taken either by mouth or hypodermically.

FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

BERLIN, September 26, 1890.

Reminiscences from the Congress.—Koch's Latest Discovery.—The Emperor Protecting a Physician.—The Prostitute Question.—The Gonococcus.—Onanism in a Child eighteen months old.—The Romance of an Alleged Madman.—Sexual Perversion in the German Nobility.—A Sane Inmate of an Insane Asylum.

The Berlin Congress has done wonders in changing the repute of American physicians abroad. The notorious "Philadelphia Doctor" no longer exists, and those previously regarded as charlatans are to-day viewed with respect and mentioned with terms of high praise. It is at last an established maxim among German physicians that the American practitioner is in every way the peer of any of his European colleagues. Not only the great number of American guests was an immense surprise, but also the quality of the American representatives and the indefatigable energy displayed by them. It is a fact that, while the European physicians visiting the Congress "did" the town, the Americans were hard at work in the sections, hospitals, or at the exhibition. It has also been favorably commented upon that the majority of Americans were accompanied by their wives. The brilliant lecture of Prof. Wood on anæsthesia will probably have a lasting influence upon anæsthetic practice in Germany, inasmuch as many surgeons have concluded to try ether instead of chloroform, which is almost exclusively used in Germany.

The disgraceful scenes at the banquet given by the city of Berlin to the Congress were recently the topic of discussion in Council. A councilman called the Congress a medical schuetzenfest, and emphasized the waste of money. He was not altogether wrong. The money spent by the city for the Rathhaus banquet was really enormous and the result was total intoxication of most of the shining lights of the profession. I regret to state that the bigger the man the more he was inebriated. On a Professor whose name is a household word all over the medical world artificial respiration was practiced for almost an hour and another Professor who has revolutionized one of the most important of medical branches had a bad cut in his head, the result of a fall. A French physician who has made his name renowned by fighting intemperance through exposure of the injury inflicted upon the organism by alcohol, was unable to spell his own name. By a queer coincidence I also saw two men hugging each other who are known as irreconcilable antagonists in science, one a leader of German bacteriologists and the other a well-known Paris Professor who does not believe in bacilli.

Professor Koch is just now experimenting with the new bactericide on the living organism. His announcement at the Congress that he had found a remedy which kills the bacillus tuberculosis without injuring the organism, was received with incredulity, all the more as he suppressed its name. Recent researches established by Koch at the Imperial Health Office appear to demonstrate that the antibacterial agent in question acts in the indicated direction, not only on animals, such as the guinea-pig, but also on man. How long yet and tuberculosis will—according to that outlook—be included among the curable diseases. But who has to-day really the courage to believe that?

At a recent visit paid to Heligoland, which has been reunited with the Fatherland, I learned of an interesting little affair in which the Emperor of Germany assumed the rôle of a doctor's protector. In the proclamation accompanying the annexation of Heligoland, the Emperor had promised not to injure the business interests of any of the residents of the island. Dr. Lindemann, the old resident physician of the island, soon after that found cause to complain to the Emperor that two German physicians intended settling in Heligoland, while the British Government had refused that privilege to any other doctor. Next day Dr. Lindemann received word from the Imperial

Cabinet that His Majesty forbids the settling of a second physician in Heligoland, except on consent of Dr. Lindemann.

The Berlin city authorities are at loss what to do with their twenty thousand registered prostitutes. At present they can room where they please, but are forbidden to walk on certain streets, such as Unter den Linden, Leifzeger and other streets, and are compelled to present themselves twice a week for examination in the City Hall. Their examination, as carried on to-day, is a perfect farce, and consists in the ocular inspection of the genitals by an old doctor, provided with a badly-disinfected speculum. Subacute, chronic or localized gonorrhœa this physician could not possibly discover, and the result is an enormous rise of the number of cases of gonorrhœa in Berlin, although few of the women were found to be infected. The fathers of the city have consequently issued a new regulation, which makes the examining office a position for life, and directs a microscopic and bacteriological investigation in every case.

The question whether the presence of the gonococcus in the genitals of the female is conclusive evidence of gonorrhœa has at present entered into a new and interesting phase of development. For, in a large number of cases this microbe has been found where the suspicion of sexual intercourse was out of the question. Fraenkel and Widmark have shown that in vulvo-vaginitis of little girls the gonococcus is always present. Against this doctrine powerful arguments have been advanced, particularly the manifold and obscure sources of infection in these cases. The lately-published investigations of Vibert and Bordat, appear to fully confirm the doctrine of Fraenkel and Widmark. Six girls aged from two and one-half to eleven years, claiming to have been immorally approached by six men were the subject of examination. The men charged with the crime were likewise examined, but no trace of gonorrhœa was found in them. Singularly in all six girls the gonococcus was found to be present. To be sure, if the gonococcus is present in every case of vulvo-vaginitis, it will be exceedingly difficult henceforth to diagnosticate gonorrhœa in the female, unless manifest evidences are present. And unfortunately it is true that the chronic and subacute cases of gonorrhœa in the female form the most frequent sources of infection. Still the examination of the prostitutes is doing some good and Berlin has fewer cases of gonorrhœa than New York, for instance; though I firmly believe Berlin to be a more immoral place than New York.

That onanism is largely practiced by children is known, but that an infant eighteen months old could be a confirmed onanist is certainly a revelation to the greatest pessimist. Dr. Crivelli, of Paris, presented to the Congress the photograph of a child of the age stated, showing a development of the genital organs like that of a girl of eighteen years. Mammæ and mons veneris were immensely developed, the menses had appeared and continued since three months, and had lasted for from three to four days. To perfect this phenomenal group of appearances, the child was a confirmed onanist, indulging in the act about twice a day.

The immoral tendencies and perverted sexual appetites of some of the nobility of Germany have just now come again to the front in a most disgusting manner. Von Zastrow, a representative of one of the oldest and richest noble families of the land, who was sentenced many years ago for illicit intercourse with men, is the type of this class of criminals.

Yesterday Major Von Normann, Commander of the Potsdam Subofficer's School, was found dead in his room. His radial arteries were opened and he was poisoned besides. Twenty-seven cadets had left the academy, but declined to state the reason for it. At last the revolting practice of the Major had been reported, and all the town knew that he would kill himself, so no one was surprised. I believe that this perversion is simply a certain kind of cerebral affection —a mania, and as such subject to treatment.

Professor Eulenburg, of Berlin, has this week pronounced sane a young Hussar Lieutenant, Carl Hermann, who could write a book on his troubles. He was thirty years of age, rich, handsome and happy, when suddenly, owing to family intrigues, he was taken from the Austrian garrison, where he served, and sent to an Insane Asylum. Four times he succeeded in escaping, but was recaptured each time. His wife was at the bottom of his misfortunes; she had, for example, charged him with practicing abortion on her person. While in the Asylum the young officer wrote "A ball-night in the Insane Asylum," and made plenty of money by the immense sales of that book, obtaining thus the means for escape. On the testimony of Prof. Eulenburg the officer will

be reinstalled into his former titles and possessions.

PERISCOPE.

Rabies or Hydrophobia.

A discussion at the Neurological Section of the New York Academy of Medicine.

The President of the Section, DR. L. C. GRAY, in discussing the clinical aspects of hydrophobia said that the extreme variability in the period of incubation had given ground for the belief held by many competent observers, that if there really existed such a disease as hydrophobia at all, death might also occur, as the result of fear, with symptoms closely resembling the true disease. He thought himself justified in assuming that frequent mistakes are made in the diognosis of rabies, the so-called dumb rabies being merely a symptom of simple purulent meningitis and meningo-encephalitis, and that very few cases of true rabies or hydrophobia—the latter term being used to signify the disease in man—had been observed in New York City or in the country at large, and he believed that there was a disease running a fatal epizoötic course in the dog and other lower animals, capable of being communicated to the human being, and causing death, although the evidence of this would rest mainly upon pathological and experimental findings.

DR. L. C. DANA said that there was no constant change to be found in this disease. The nervous centres, which are the parts chiefly involved, are congested and occasionally showed hemorrhagic and softened spots, with subsequent evidences of increased vascular activity, exudation of leucocytes into the perivascular spaces and possibly the beginning of a multiple focal myelo-encephalitis or of focal necrosis and the symptoms are evidently not the result of any organic changes in nerve tissue, but of a distinct poison, the product undoubtedly of microbic activity. In the light of Pasteur's scientific work this question of specific origion was proven. The speaker did not believe that there were authentic clinical records of a single case in which the fear of hydrophobia had caused a disease measurably similar to rabies, nor was there a case of death from this hypothetical phantasm. There had possibly been some tetanus following bites or acute mania, in those predisposed, from fright. He thought Pasteur had demonstrated the fact that as a reliable prophylactic measure, antirabic inoculations could be successfully employed.

DR. H. M. BIGGS then gave an elaborate description of the respective methods of inoculation and of the various emulsions used in the work of both Pasteur and Ferran.

DR. H. C. ERNST, of Boston, who has done considerable experimental work in this field of inquiry said that he regarded the results by Pasteur as among the greatest achievements of modern medicine. The speaker had been entirely converted to a thorough acceptance of the theory after conducting a series of inoculation experiments. If there was one thing certain in medicine, it was the unerring precision in the results obtained by the inoculation with these cord emulsions under the dura mater of the healthy rabbit. There is nothing like it in the whole range of scientific experimentation. As to the existence of a constant lesion, pathognomonic of rabies, he did not know that this could, at present, be defined with scientific accuracy, but careful observation had demonstrated the very uniform presence of infiltration of the minute vessel walls in the medulla with white cells, engorgement of the veins, and occasionally perivascular hemorrhages. What appeared like small miliary abscesses were also present. The condition had been aptly covered by the term "miliary bulbitis." Dr. Ernst then gave the clinical histories of three cases of true rabies in man which had come under his own personal observation, and which, taken with the fact that a large number of dogs were affected at or about the same period, pointed to the recent existence of an epidemic of rabies in Boston. One of the cases, cited in detail, was of special interest, because the patient, between the paroxysms, was able to describe his condition. He had been especially questioned as to whether there existed any repugnance to water, and had positively stated that this was not so, but that any mental process connected with the act of deglutition caused an uncontrollable spasm of the muscles of the throat, and this patient had also described himself as perfectly conscious of his acts during the violent paroxysms, but as being utterly unable to control himself. Even while thus quietly describing his sensations the fit would come on, and the next moment he would be on

the floor, struggling with four or five men. Then as to the value of the preventive method, the speaker instanced the case of a boy who was bitten in August by a dog which, within fifteen minutes, had also bitten several dogs, and of these, two had died of rabies, and the father of the boy, becoming alarmed, had consulted the speaker. Inoculation was advised, and was submitted to twice a day. No bad symptom had resulted. Before the boy's return home, a third dog had succumbed to unquestionable rabies.

Whether there was anything in Pasteur's claims or not, one thing was certain, he had got hold of a specific virus which could be transferred from one animal to another indefinitely, always producing a sequence of practically identical symptoms. The experiments made by Dr. Spitzka had not been carried far enough. They had produced something similar to the appearance of rabies in the rabbits, but had offered no sort of ground for comparison with Pasteur's experiments. While hardly wishing to stand up as a champion of the Pasteur method, if the statistics of the Institute were not reliable, he was still bound to believe in the honesty in purpose of Pasteur and his assistants. It was a significant fact that after the careful elimination of all cases in which an element of uncertainty existed the mortality rate for those treated by inoculation under the method was only ninety-eight one-hundredths of one per cent. He expressed surprise at the statement that there could be no such condition as pseudo- or lysso-phobia.

Dr. R. W. Birdsall said he had seen a number of cases of pseudo-rabies resulting from fright after a bite or scratch of a dog. These cases had not resulted in death, though he was not prepared to go so far as to say that death from fright was not possible. The nervous shock sustained might set up a series of changes such as motor paresis, œdema of the brain and coma, resulting in death. He did not believe they were yet in a position to be able to refer the phenomena of true rabies to the existence of one kind of specific germ. The effects might be due to the presence of distinct varieties.

Dr. H. P. Loomis had only considered the subject from a pathological standpoint. The findings tallied very much with those described by Dr. Ernst. Sections of the lower portion of the medulla had showed congestion of the capillary vessels and giant cell infiltration of the adventitia, but no capillary hemorrhages or thrombi.

Dr. Byron, who has made extensive experiments at both the Carnegie and the Loomis laboratories, had arrived at the conclusions that, (1) inoculations of the specific virus of rabies under the skin are completely useless, (2) the results desired could never be produced by any process except subdural inoculation, and that even then the effect was not inevitable. The question was a serious one, and the subject still open to further experimental research before any definite scientific conclusions could be formulated.

Dr. E. C. Spitzka said he had made no experiments on rabbits as intimated by Dr. Ernst, who had evidently not followed the points of his work. In the experiments made by him on dogs, he had made no claim that these animals had represented true cases of hydrophobia, but by the introduction of various irritating substances into the brains of these dogs he had produced conditions of bogus hydrophobia. He was now associated with the conduct of a series of elaborate experiments on rabies the results of which could not as yet be formulated.

Dr. L. C. Gray thought the discussion had proved, (1) that there is undoubtedly in the lower animals a disease, known as rabies, possibly made up of several diseases, due to different micro-organisms; (2) that this disease is more frequent in the lower animals than a similar disease in man known as hydrophobia; (3) that while this so-called rabies in animals occurs very often in this country, it occurs less frequently in the human being; (4) that very few medical men have seen genuine cases of hydrophobia; (5) that cases of pseudo-hydrophobia are by no means uncommon, and that death could result from the condition; (6) that there still exists considerable diversity of opinion as to the value of Pasteur's method which would furnish material for discussion and incite to further experiment.

Exsection of Part of Pubic Bone.

The *Centralblatt für Chirurgie*, July 26, 1890, quotes the following from the *Gaz. des Hôpitaux*, 1890, No. 33.

In the case of a soldier, twenty-three years old, with pain in the left inguinal region and in the upper part of the thigh, Moty found a

flat, hard, elastic, fluctuating, irreducible, non-pulsating tumor, beneath the aponeurotic structures. A large cheesy abscess, with fragments of bone, was exposed by operation. The left half of the symphysis pubes was converted into a tuberculous sequestrum. This was removed, together with all caseous matter and a counter-opening was made in the perineum. The urethra and spermatic cord were carefully protected. Urine was voluntarily passed three hours after the operation. Recovery took place in five weeks. Moty's operation shows that the symphysis pubes may be removed in part or entirely without injury to the urethra, and the spermatic cord may be protected from all injury, on account of its mobility. A counter-opening in the perineum provides for antisepsis and drainage.

In the case reported the origin of the tuberculous process is unknown. There was no history of trauma. The testicle and the urethra were healthy; and, although the tuberculosis must be recognized as a local manifestation of a general infection, the operation was followed by excellent results.

Cincinnati Medical Schools.

It is a gratifying fact that all the regular medical colleges of Cincinnati have kept step in the march of progress in the matter of extending the curriculum. The announcements all state that the three-term course has been made obligatory, a statement which might have been anticipated for years from the fact that all three of the colleges have been placing a premium upon the extended course by abating the fees for the third year. We are informed that the final concert of action was without conference but because each of the faculties recognized that the time was ripe for the change.

A wholesome tendency is shown by the fact that all the schools are remodeling their buildings with reference to clinical and laboratory facilities. This is a move in the right direction and points infallibly to the time when the present order of things will be reversed in medical teaching. It points to the time when the demonstrator will supplant the lecturer, and when the practical teacher will take the place of the didactic "professor." It indicates the time when the Pestallozian principle of education shall dominate medical pedagogues; the time when things rather than words, objects rather than phrases, shall be taught in the medical college.—*Cincinnati Medical Journal*, August, 1890.

Digging up Streets.

Dr. C. N. Dowd, of New York, has been studying the influence on health of digging up the streets of cities, and has published the results of bacteriological experiments in this direction in the *Medical Record*, June 21, 1890. He estimated the number of bacteria in 1 c.c. of the soil taken from different places. Sixteen of these samples were taken from where the earth had a strong odor of illuminating gas, and an equal number from where there was no such odor. The average number of bacteria present was about the same in the two classes of earth. He next studied the action of illuminating gas upon the bacteria of earth and upon the typhoid bacillus. The results were negative so far as could be determined. He concludes that the digging up of streets may increase the spread of disease-germs, but that the increase cannot be very dangerous. If this be true the digging of ditches in cities ought not to cause great alarm.

Cœliac Affection in Children.

The *Dublin Journal of Medical Science*, September, 1890, says that Dr. R. A. Gibbons, in a detailed description of four cases of what Dr. Gee calls the "Cœliac Affection" in children, thus sums up its general characters: The disease is characterized by the passage of large, loose, white, or whitish, frothy, intensely fetid motions; by pallor of the skin; wasting; loss of muscular sense, and by the fact that it is most frequently met with in children between one and five years of age. The youngest child I have seen attacked with it was between ten and eleven months old. I have seen it in children with perfectly healthy parents, and, indeed, sisters and brothers in every way healthy. In only one family can I trace any history of struma on the side of the father. No history of tubercle can be traced in the family of any of the patients whose cases are related, except one, and in that consumption occurred in a paternal uncle of the patient, and in all there is no history of syphilis obtainable, and no reason to suspect it. In most of the cases there is

a history to be obtained of gout, either on the side of the father or mother, or in distant relations. The examination of the feces themselves throws no light upon the matter. In those I have submitted to careful microscopical examination I have never been able to discover anything abnormal, and I have failed to detect any tubercle bacilli, although they were carefully searched for.

Contagion of Diphtheria at Funerals.

Dr. E. H. Bartley, of the Long Island College Hospital, says, in the *Brooklyn Medical Journal*, September, 1890:

The public at large seem to require very startling results in order to become educated in sanitary matters. The fact that contagion may be spread by corpses does not, even yet, seem to have taken possession of the public mind. Dr. Baker, of the Michigan State Board of Health, has issued a circular calling attention to a case of diphtheria in Lapeer County, Michigan (described in the REPORTER, August 2, 1890, p. 146), which originated from exposure in viewing the remains of a woman and child, brought from another county, and who had died from a throat disease, supposed to have been diphtheria. Many others, says Dr. Baker, would probably have been exposed except for the action of the local health officer, Dr. Wisner, who, suspecting the cause of the deaths to have been diphtheria, warned the neighbors and forbade the opening of the coffins at the funeral. He promptly isolated the first person attacked, and no epidemic followed. This, says Dr. Baker, is quite different from the result of a similar occurrence at Zanesville, Ohio, last spring, where many deaths resulted from exposure to a corpse brought from Chicago. It shows the importance of notice to the local health officer of the arrival of a corpse known to have died of a contagious disease, so that he may take every precaution that may be necessary.

Hysterical Muteism Cured by Hypnotic Suggestion.

M. Ruault reported at a recent meeting of the French Society of Otology and Laryngology (*Revue de Laryngologie*, September 1, 1890), an interesting case in which he cured a woman of hysterical speechlessness by hypnotic suggestion. During a laryngoscopic examination, he drew her tongue out very strongly, and at the same time pushed the mirror back in the throat: he then let go of the tongue, drew the mirror out and said, positively, to the patient: "You can speak now; you are cured. What made you mute was that the bone which holds up the larynx was a little dislocated, but I have been able to set it right by pulling on your tongue." The patient immediately began to speak, with a little hesitation at first, but soon very naturally.

Several months afterwards this same patient became aphonic in consequence of bilateral paralysis of the adductors. Dr. Ruault tried the suggestion again, and also electricity, but neither did any good. Dr. Ruault points out the marked difference shown in this case between the effect of suggestive therapeutics upon a disease depending upon a psychic case, and that depending upon a material alteration in the organs of speech.

Phthisis in Berlin.

According to Dr. George Meyer, in the *Allgemeine Medicinische Central Zeitung*, July 26, 1890, official statistics disclose that the number of deaths from phthisis (excluding laryngeal phthisis and pulmonary hemorrhage) in Berlin, between the years 1880 and 1889 was smallest in the year 1881 and largest in 1889. The mortality, however, in proportion to population has decidedly, though not regularly, decreased. From 1880 to 1889 there were 322,192 deaths in all, of which 41,608—12.91 per cent.—were due to phthisis. Dr. Meyer concludes that the time is ripe for the discussion of the question of establishing institutions for the treatment of diseases of the chest.

Posthumous Labor.

The newspapers reported from Vienna on September 19, that the body of a woman named Goeda was exhumed at Szegedin that day for the purpose of an autopsy. When the coffin was opened it was found that the woman had been buried alive and that she had given birth to a child in the coffin.

This story comes so soon after the account published in the *Lancet*, and repeated in the REPORTER, October 4, that it may be suspected to be a reproduction of that one.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

TREATMENT OF EMPYEMA.

The treatment of empyema has been a moot question since the days of Hippocrates. At different periods in the history of medicine varying meanings have been applied to the word empyema. It has been defined as a collection of blood or of pus or of other fluid in some cavity of the body and particularly in that of the pleura. It has also been used as a synonym for thoracentesis and for the spontaneous evacuation of a purulent pleural effusion, empyema necessitas. To-day, however, by empyema is meant a collection of purulent fluid in the pleural cavity.

An interesting and important discussion on this subject took place before the Ninth Congress for Internal Medicine, at Vienna, April 15 to 18, 1890. The report of the proceedings, compiled by Alexander Fraenkel, is published in the *Centralblatt für Chirurgie*, July 26, 1890. Immerman and Schede read papers on the subject, addressing themselves more particularly to the treatment. For this the main indications are: to remove the pus; to prevent re-accumulation; and to restore as nearly as possible the normal anatomical and physiological relation of the respiratory apparatus. It is generally agreed that pus should be removed as soon as it has been recognized to have formed, in the pleural cavity as well as in any other situation. Such effusions are rarely absorbed. Absorption is said to take place in so-called metapneumonic empyema, characterized by the presence of the pneumonia coccus exclusively. The diagnosis of this condition can only be made by the methods of bacteriological isolation and culture.

The operative removal of pus from the pleural cavity is not very difficult. The prevention of its re-accumulation, however, is a rather more serious matter. As long as any of the excitants of suppuration are left behind, accumulation must recur. The great difficulty is in the removal of all offending matters.

For a perfect result the restoration of the normal respiratory conditions must be attained. This is the greatest difficulty. When there co-exists irreparable disease of the lungs, as in phthisis, in perforative pyopneumothorax or old and neglected empyema, a relative cure—that is, recovery with deformity—is all that can be expected.

Various means have been suggested to meet the indications. The effusion can be removed by puncture and aspiration, but then it usually re-accumulates. This may, however, answer as a palliative measure in desperate cases in which radical treatment is not admissible. Disinfectant irrigation following aspiration is not more successful. A more rational method appears to be irrigation of the pleural cavity by two openings at opposite points (one in front and below, the other behind and above) by means of a

permanent drain which can be closed at times—the method of Michael. This avoids the formation of a pyopneumothorax and suffices for the constant evacuation of the pus. The so-called radical methods all have in common a large opening, remaining unclosed until cure finally results. Since the general application of this principle to the treatment of empyema the mortality has fallen to one-fourth or one-fifth of what it formerly was. Even in putrid empyema the prognosis is no longer as grave as it was and is regulated more largely by the constitutional condition and by complications than by the mere existence of the effusion.

The radical method of treating empyema was not unknown in the days of Hippocrates, nor was the preference for the low opening unrecognized. The method now preferred is that of König, which consists in incision at the side of the chest, sub-periosteal resection of a rib, clearing the pleural cavity of coagula, drainage and antiseptic occlusion bandage. Subsequent irrigation becomes necessary only if the pus becomes stagnant. To avoid the necessity for irrigation, Küster recommends, in case of small, sacculated empyemas, packing the cavity with iodoform gauze; in case of more extensive effusion, an opening and a counter-opening, anteriorly and posteriorly, at the lowest possible points, close to the diaphragm, with resection of a rib posteriorly, to afford thorough drainage.

Brilliant as the results of radical operation undoubtedly are, deformity and impaired function are apt to follow. The lung becomes adherent to the chest wall, which undergoes retraction. By the method of Bülau the production of an artificial pyopneumothorax is obviated, positive pressure being substituted for negative. The principle is that of the syphon. A trocar is introduced at a dependent point on the lateral aspect of the chest. Through the canula a drainage-tube is passed into the thorax, the canula is removed and the drain is made air-tight, and connected externally with a long tube dipping into an antiseptic solution. Constant negative pressure is thus exerted, there is no accumulation and the lung expands naturally. If the lung is readily and completely expanded, as in recent empyemas, this suffices; otherwise, and when the pus is thick, the action may be aided, temporarily or permanently, by aspiration. So, too, if the tube become occluded by coagula, these may be pushed back into the pleural cavity, there to undergo disintegration and liquefaction. The amount of secretion diminishes; it soon becomes serous. The tube is gradually shortened and finally, with the cessation of the discharge, is removed. The cure is complete; there is no deformity, no defect; and the lung is able to move with almost normal freedom. Immerman has collected fifty-seven case treated by the method of Bülau. Of these patients, three died; five required secondary operation; the remaining forty-nine recovered completely.

Schede prefers incision and resection of a rib. He avers that open pneumothorax does not hinder expansion of the lung. As to the question of amyloid degeneration and tuberculosis, as contra-indications in operation, he cites a case in which amyloid disease of the liver, with ascites and anasarca, receded after extensive resection of the chest wall. The empyemas of tuberculous subjects, if the general condition permits, should be treated like all others; but empyemas resulting from miliary tuberculosis of the pleura and from perforation of cavities should be treated only palliatively by aspiration. In ten cases of pyopneumothorax of excessive degree, in which the lung was pressed against the vertebral column and fixed by adhesions, Schede made a flap of the soft parts of the lateral and adjacent anterior and posterior aspects of the chest, resected the underlying ribs from the second to the lower level of the pleural cavity and from the costal cartilage to the tubercle of the rib, removing bone, intercostal structures and thickened pleura; after which he covered

the wound with the original flap. In none of the cases had the condition existed for less than three years. Six of the patients were cured; one died in ten days, of iodoform intoxication; in one Bright's disease developed; and in two recovery was not complete at the last observation.

In conclusion, we think the present opinion to be that as soon as effusion in the pleural cavity is recognized as purulent it should be evacuated. Puncture and aspiration, with or without irrigation, may be done as a palliative or preliminary measure, and Bülau's method of aspiration drainage may be tried in all other cases. In double empyemas its application is almost indispensable. Other methods failing, recourse may be had to incision and resection of one or more ribs.

INSOMNIA OF CHILDREN.

The treatment of insomnia of children is one of the most important subjects which come under the attention of medical men; for, while at times insomnia is not a very serious matter, many times it is very serious to both children and parents. In discussing the treatment of insomnia, Simon, as quoted in the *Revue Médicale*, July, 1890, dwells upon the importance of searching for the cause, which is often very difficult to discover. Most frequently insomnia is caused by dyspepsia; and it is important to question parents as to the manner in which a child is fed, and to investigate the milk of the nurse, to see if starchy food has not been given too early, or even alcohol or possibly tea or coffee. Sometimes insomnia depends upon the fact that the evening meal is too large. Children as old as three or four years should not eat too much in the evening immediately before sleeping.

When the cause of insomnia has been discovered, the first duty of the physician is, of course, to do away with that. After this, hypnotics may be required; and, of all hypnotics, Dr. Simon truthfully says, opium is the very best. He says an attempt has been made to banish the use of opium from the therapeutics of infancy, but that this is entirely wrong. It would not be proper to give opium to a child suffering with constipation or disorder of the kidneys; but in the absence of such contra-indications, laudanum may be prescribed in the dose of a half-drop under one year, and of a drop for each year after that. Syrup of codeine is a good hypnotic, and is admirably borne by little children. Half a coffeespoonful may be given under one year, and a spoonful for each year afterwards. The bromides are often useful, four or five grains at six months of age, seven or eight at a year, and afterwards fifteen grains at a dose in the evening. Chloral is an excellent hypnotic, and Simon says it is devoid of danger in the same doses as are recommended for the bromides. Simon advises that it be given preferably, in a lavement, using first a simple lavement to wash out the bowel, then the chloral, combined with camphor or musk, in the yolk of an egg, stirred up with a little quantity of water. He thinks that chloral is especially adapted to children who are threatened with convulsions, hiccoughs and jerkings. In some cases antipyrin, used in the same way as chloral, is a good medicament.

These suggestions are very interesting as coming from a man of great ability and much experience, and especially because they do not consist in theoretical studies of this troublesome difficulty, but propose plain and practicable measures for curing it.

COLORED SOUND.

In the *Revue de Laryngologie d' Otologie et de Rhinologie*, September, 1890, there is an exceedingly interesting article by Suarez de Mendoza upon the curious subject of color perceptions associated with sound, which has been spoken of editorially in the REPORTER, January 28, 1888, and November 16, 1889. His communication is an abstract of a more complete work which is to be published very soon. He discusses principally what he calls false or pseudo-sensations

of color sound, of which he gives a number of illustrations from his own observation. In concluding, he discusses the reason for the various sensorial associations of this kind. Some authors have tried to discover it in the relations of location of the sensorial centres of the brain and of anastomoses between the nervous fibres or in the reciprocal vibrations of their cells. If we accept the theory of anastomoses, it it will be necessary to admit that the brain-cells, as well as the sensorial centres, have anastomoses, which in most persons are rudimentary, but in particular persons are well developed, either spontaneously or as a result of special cultivation. It is possible that secondary sensations may be produced by a reflex irritation action through the sensitive branches of the pneumogastric nerve, as seems to be indicated by experiments made five years ago by Urbantschitsch.

These different theories do not thoroughly satisfy Dr. Mendoza, and until some more complete explanation is suggested, he prefers to attribute the phenomena which he has studied to an association of ideas—conscious or unconscious—dating from childhood. In this category, he would place the occurrence of ideas of color connected with days of the week and periods of history. Some of these experiences he is disposed to attribute to some peculiar psychic operation, the intimate nature of which has not been discovered.

RABIES OR HYDROPHOBIA.

At the last meeting of the Neurological Section of the New York Academy of Medicine, a very interesting discussion took place on the subject of rabies or hydrophobia. This discussion is published in the department of "Periscope" in this number of the REPORTER, and will, no doubt, prove instructive to its readers. In commenting upon it, it must be said that the moderate tone of most of those who took part in the discussion, as reported, must be gratifying to all who desire that right views shall be reached in so important a matter.

Dr. Ernst, of Boston, spoke of the "unerring precision" in the results obtained by the inoculation with cord emulsion under the dura-mater of the healthy rabbit. Those who are familiar with the facts of Pasteur's experiments and the reported results of Dr. Ernst's own experiments, will probably think this expression is too strong. The term "unerring precision" can hardly be applied with propriety to results which so often vary from a standard which Pasteur has repeatedly declared to be infallible.

It is not very likely that those who hold positively to the specific theory of hydrophobia, and those who do not believe this theory, will be of one mind in the near future; but temperate discussions of the subject must lead to improvement in knowledge in regard to it, and ultimately, we may trust, to the general acceptance of accurate and trustworthy beliefs.

DR. BARTHOLOW AND THE JEFFERSON MEDICAL COLLEGE.

On October 27, the Trustees of the Jefferson Medical College declared vacant the Chair of Materia Medica, General Therapeutics and Hygiene, which for eleven years past has been occupied by Prof. Roberts Bartholow.

This is the culmination of a long and somewhat painful process, during which it has been openly stated in the newspapers and elsewhere that Dr. Bartholow was suffering with impairment of his mental faculties. Some weeks ago the Trustees of the Jefferson Medical College gave Dr. Bartholow an opportunity to resign his chair, or to take a leave of absence for about six months, in order that he might see if it were possible to recuperate sufficiently to resume his professional duties. This opportunity Dr. Bartholow declined to accept, asserting that it was a reflection upon his mental and physical condition, and that he was entirely com-

petent to continue to discharge his professional duties.

At one time the students of the College took such a view of the case that they held a meeting and adopted resolutions, praising Dr. Bartholow very highly, and requesting that the trustees should recognize his ability as a professor and continue him in the chair of Therapeutics. Since then, we understand, the students have recognized the wisdom of the action of the Board of Trustees and are quite in accord with it.

It is to be hoped that—notwithstanding he is so reluctant to accept it—the opportunity for rest, which will be afforded to Dr. Bartholow, may be utilized to the establishment of his health, and that the Jefferson College may not suffer in any way by his removal from the Faculty. Already a number of candidates for this very desirable position have appeared in the field, and no doubt others will be heard from before long.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

A MANUAL OF ANATOMY FOR SENIOR STUDENTS. By Edmund Owen, M. B., F. R. C. S., Surgeon to St. Mary's Hospital, London, etc. With numerous illustrations. Small 8vo, pp. viii, 526. London: Longmans, Green & Co., 1890. Price, $3.50.

The author of this excellent book states in his preface that the present volume is the outcome of his desire to leave a permanent record of his work as Professor of Anatomy at St. Mary's Hospital Medical School, from which position he has recently retired after a service of twelve years. One's first thought on seeing a new book on Anatomy is, what excuse can there be for its publication? There has been less progress in this science than in most others, because there has been less room for it. What is found in certain regions of the body is a matter of fact, is at all times capable of proof or disproof. In this respect anatomy differs from physiology, in which the functions of the parts are to a degree matters of inference and conjecture. But, notwithstanding the existence of many excellent books on anatomy, the present one is not superfluous, but it is just what many advanced students need in order that they may profit by their lectures upon surgery and by their practical work in hospital wards, both medical and surgical. The author has designed to give the senior student who has left the dissecting-room a manual which shall supply him with such anatomical information, free from wearisome detail, as is essential for successful and intelligent work in the medical and surgical wards, and in the special departments of a hospital. Thus we find, under a description of the pleura, an account of pleurisy, hydrothorax, empyema, and pneumothorax, with brief statement of the essential points in physical diagnosis, and directions as to tapping the chest. The student is taught how to mark the limits of the lungs, liver and heart, and how to conduct a physical examination of the chest. So, under an account of the spinal cord, the various lesions and their physical characteristics are indicated. In this way there is brought home to the student in an unmistakable way the close connection existing between anatomy and the diagnostic part of clinical medicine. Every student will do well to read certain parts of the book before presenting himself for examination in physical diagnosis. We cordially recommend it, and feel that Mr. Owen has done a real service in writing it.

DUST AND ITS DANGERS. By T. Mitchell Prudden, M. D. 16mo, pp. 111. New York & London: G. P. Putnam's Sons, 1890. Price, seventy-five cents.

Dr. Prudden means by dust, the fine particles of earth and other matters which float in the air or are readily raised and wafted by it, but especially the finest dust, which is visible only when illuminated by a sunbeam. This dust, he says, consists of fine vegetable and animal fibres, such as cotton or wool, and of a great variety of micro-organisms, either single or in masses He aims to point out the sources of these germs and their general behavior, to show the differences between in-door and out-door conditions, and, finally, to suggest measures by which pure, wholesome air can be obtained The disease to which he gives especial attention is—as might be expected just at this time—tuberculosis. This he believes is spread by inhaling tubercle bacilli in the dust of the air, the bacilli getting into the air through the drying and pulverizing of the expectorations of consumptive patients. To prevent this source of infection, he adopts and repeats the recommendation of Cornet—that the sputum of phthisical patients should be collected in cups and burned, and should on no account be received upon fabrics or deposited upon the ground or in ordinary cuspidors.

Those who may be disposed to differ from Dr. Prudden in his conclusion that the tubercle bacillus in the air is such a fruitful cause of consumption, will yet endorse everything he says regarding the simple furnishing of living-rooms, and the recommendation that they should be swept with the windows wide open, and then when the dust has had time to settle, "dusted" by wiping the floors and furniture with mops and moist cloths. This is cleanliness, and cleanliness is the most effective precaution against all septic diseases, medical or surgical.

The book is for laymen, and intelligent laymen will read it; but, unfortunately, its usefulness is necessarily limited by the fact that those who need its instruction most, rarely read anything but a newspaper.

Literary Notes.

—The November number of *The Sanitarian* will begin the publication of the "Transactions of the American Climatological Association," held at Denver, Col., September 2–4, 1890. New subscribers for *The Sanitarian* for 1891, sending their subscriptions before the 15th of November, will be supplied with the November and December numbers gratis. The editor and publisher is Dr. A. N. Bell, Brooklyn, N. Y.

CORRESPONDENCE.

Treatment of Measles.

TO THE EDITOR.

Sir: Noticing that Dr. Hiram Corson referred to your Editorial on Measles, I am induced to write this; for I look upon him as one of the most sensible physicians the world has produced. On reading your Editorial immediately after it appeared, I thought it was strange you should advise such treatment in measles.

Like Dr. Corson, I want my patients kept comfortably cool, in a cool airy room, and to have all the cold water, butter-milk and lemonade they can drink. This is the sum and substance of my treatment in a simple case of measles. When complications appear (which is very rare, when the above course is pursued), of course the proper remedies must be added. Complications I have generally found result from giving hot drinks and keeping the patient too hot.

What a pity that such men as Dr. Hiram Corson could not live to be a thousand years old. The world has too few of them. It is seldom we have the opportunity of reading after men with such good, hard, common sense.

Yours truly,
L. L. SILVERTHORN.

Charleston, Ill.

QUESTIONS AND ANSWERS.

[In this department will be published questions on any medical subject by readers of the REPORTER, and answers by the EDITOR or by other readers.]

Esmarch's Painless Cancer Powder.

DR. JOHN J. TAYLOR, of Memphis, writes:

Will you be so kind as to give me the formula of Esmarch's Painless Cancer Powder?

[Professor Esmarch gave the formula of a powder which he said was exceedingly efficient, and yet painless, in a paper read before the Sixth German Surgical Congress, which was published in the 6th volume of the *Verhandlungen der Deutschen Gesellschaft für Chirurgie*, Berlin, 1877. The formula is on page 208 and is as follows:

℞	Acidi arseniosi	
	Morphiæ muriatis	aa 0.25
	Hydrargyri chloridi mitis	2.00
	Gummi arabici pulveris	12.00

This formula would be represented by the following:

℞	Arsenious acid	10 grains
	Muriate of morphia	10 "
	Calomel	80 "
	Powdered gum arabic	1 ounce.]

Dr. Shakespeare's Report on Cholera.

DR. D. W. C. LAVERTY, of Middletown, Pa., asks "Has Dr. Shakespeare's report to the Government on Asiatic Cholera ever been printed and distributed by that office"?

[Dr. Shakespeare's report has not yet been issued by the Government. Inquiry of Dr. Shakespeare as to when it will come out, has elicited the following under date of October 19: "I am now reading the proof of the last chapter of my Report and expect to finish it this week. The Report will make a volume of 900 pages quarto."]

NOTES AND COMMENTS.

Excision of Twenty-six Inches of the Ileum.

In the *Occidental Medical Times*, September, 1890, Dr. J. S. Wintermute, of Tacoma, Wash., reports the case of a man 21 years old, who, on October 5, received a wound from the bullet of a 44-caliber revolver. The bullet entered the back about one and a half inches to the left of the spine, struck the transverse process of the second lumbar vertebra, passed through the abdominal cavity, the anterior abdominal muscles, and finally lodged under the skin in the superficial fascia, about two inches to the left of the umbilicus. Dr. Wintermute first saw the patient shortly before midnight, and about an hour after the receipt of the described injury, when he was in a condition of nervous collapse, and vomiting blood freely. Owing to the absolute want of the necessary operating facilities under which to operate immediately, he was made comfortable for the remainder of that night.

Early the succeeding morning, at about nine o'clock, assisted by Dr. John F. Beardsley, Dr. Wintermute first removed the bullet, and then proceeded, under antiseptic precautions, to perform median laparotomy. Upon entering the abdominal cavity, a large amount of clotted blood, undigested beans, and grapes in their entirety, with chylous material, were met with. The ileum was

found to have been punctured by the bullet seven times in twenty-six inches of its length. In two of these instances the ball had completely severed the caliber of the intestine. So mutilated did this portion of the intestine appear when exposed, that it was immediately decided to amputate it. The mesentery was first ligated with a series of carbolized catgut ligatures, and then divided between the point of ligation and the margin of the gut. After the gut was removed, the upper incised end was carefully placed within the lower, and united with five closely placed interrupted catgut sutures, as suggested by Jobert. The abdominal cavity was then thoroughly sluiced out with hot water, and the abdominal wound sutured and antiseptically dressed. Little blood was lost considering the gravity of the operation, and the patient rallied fairly well after its termination. At five o'clock the same evening he seemed to be suffering little or no pain; however his case was practically a hopeless one, and even under the administration of stimulants he gradually failed, dying at about nine o'clock the evening of operation.

An interesting point in the foregoing case was the fact that so many punctures of the intestinal wall were made in so short a length of the intestinal tract. The entire tract was carefully examined, yet in no place was it injured except within the twenty-six inches exsected; even the mesentery remained intact, except at one point, where the bullet had penetrated it at the margin of the gut, admitting it within the exsected portion. An earlier operation would undoubtedly have afforded the patient greater opportunity of recovery. His loss of blood through hemorrhage into the abdominal cavity, and by vomiting, prior to the time set for the operation, would not have been so great. The nervous shock which he was suffering from after receiving the wound would probably not have been materially augmented, and greater economy of his rapidly failing strength would have been possible under immediate surgical interference.

The Age of Puberty of Indian Girls.

Dr. A. B. Holder, of Memphis, Tenn., says in the *American Journal of Obstetrics*, October, 1890, that the age of puberty among Indians it is not easy to learn, since it is the custom in most tribes for the girls to marry before the menses appear. A curious result of this custom came under his observation while in medical charge of a tribe in the Northwest. Since the girl menstruates after marriage and its attendant pleasures, the idea prevails in the tribes that the menstrual flow is the result of sexual intercourse. In two instances Indian men came to me with the complaint that their daughters, in the boarding-school at the Agency, had been seduced, as their menses had appeared! Girls in the camp will conceal and deny the flow if it occurs before they have been sold in marriage.

It is presumable that the early marriage and consequent sexual excitement, with the entire absence of modesty in Indian thought and conversation, would tend to cause precocious menstruation, and facts establish this impression. Even in the girls who are in school till after puberty menstruation occurs earlier than among white girls in the same latitude.

In St. Xavier Mission School, on the Crow Reservation, Montana, containing forty Indian girls, there are none above twelve years of age who do not menstruate. The St. Ignatius Mission School, Flathead Reservation, Montana, contains three to four hundred Indian children, received into the school so young that the ages of the girls can be learned with considerable accuracy. The sister-superior of that institution says that "in general the Indian girls begin to menstruate younger than the white girls, and those who at the age of fourteen have not yet their menses generally die of consumption."

Dr. Holder's most accurate observations were made at an Agency school which was under his personal supervision. Concerning ten girls in it he was able to fix positively the ages at which the menses first appeared. These girls were received into the school when quite young, and the record of their ages made at the time is almost certainly correct. Three are half-breeds, seven full-blood Crow Indians. They menstruated as follows: One at 14½ years, one at 14 years, two at 13 years, three at 12 years, two at 11 years, one at 10⅔ years. The two at 13 and one at 12 are not yet quite regular. The one at 10⅔ has menstruated four times at proper intervals.

From so few cases it is of course impossible to make reliable deductions. The average for these ten girls is 12.91 years, while, according to the only American statistics (Emmet's), in the white race the average is 14.23 years. This early average

agrees with Dr. Holder's opinion, drawn from other sources and expressed above. It is also in accord with the opinion of such physicians in charge of Indians as have given him their views.

The duration of menstruation in the case of the above school girls was usually two days, rarely exceeding three. They have been remarkably free from pain or other unpleasant symptoms on the establishment of the function or at its recurrences.

Hot Water in the Treatment of Acne.

Dr. Frederick J. Leviseur, Dermatologist to St. Bartholomew's and Randall's Island Hospitals, New York, says in the *Medical Record*, September 13, 1890, hot water applied twice or three times a day for about five minutes is one of the most reliable local remedies which we possess for the treatment of acne of the face. To derive the full benefit from the effects of this simple remedy it is necessary that the physician, and through him the patient, should be thoroughly familiar with the proper method of using it. The water should be very hot, so hot, in fact, that it can hardly be borne by the patient. Care should, of course, be taken not to scald the face, but if the water is warm only, instead of really hot, more harm than good will be produced. The face should not be washed, rubbed or bathed with the hot water, as is so frequently done, but a small portion of the diseased area of the face should be soaked with it for a very short time only. The heat of the water, which is brought in contact with the skin, is deeply dissipated for a moment and causes an intense but transitory local hyperemia. This is exactly what we want to produce. If the hot water is allowed to act on the skin for too long a time, say more than a minute, or if the application is renewed at too short intervals, an acute inflammatory condition is added to the disease already existing. It is sufficient to go over the affected parts twice in one sitting and the entire operation need not take more than three to five minutes. A handkerchief or a piece of soft linen is commonly used to convey the hot water to the face. I use for this purpose a very simple glass holder which I have constructed. Since this little instrument, which I have named "Thermophor," has proved itself very useful and convenient I shall take the liberty of shortly describing it here.

The instrument consists of a handle and a head. The latter is nothing else but an ordinary short test-tube. About half of this tube is filled with cold water. A thick pad of absorbent cotton is tightly stuffed into the opening of the tube. The holder is then reversed and the water inside the tube allowed to soak the cotton. The latter is thus kept in place by dint of the weight and adhesion of the water. During these few preparatory steps water has been brought to the boiling-point in a small vessel on a stove or over a gas or alcohol lamp. The holder with the cotton is dipped into the hot water, left in it for a few minutes, and then carefully carried to the affected portion of the face.

The advantages of the "thermophor" are manifold. It saves the patient's hands from coming in contact with the hot water, it renders possible the use of water of very high temperature and makes it easy to confine the action of the heat to a limited portion of the diseased area. Besides it is clean, handy and cheap.

Not only plain, but also medicated hot water may be used in the manner as described above. Hot solutions of boric acid, bicarbonate of soda, salicylic acid, resorcin, etc., are all very serviceable. I have had excellent results from the use of the so-called "lotio alba" to which resorcin is added according to the following formula.

℞ Zinci sulphatis.
Potassii sulphitis . . . . . āā ʒi
Aquæ rosæ . . . . . f ʒiv
Dissolve each of the ingredients in half the water, mix and add

Resorcini . . . . . ʒj
Sig. Lotion. Shake well.

This lotion is to be used hot at night, and cold in the morning.

Treatment of Cholera.

The chief medical officer of the Spanish army has published in the *Revista de Sanidad Militar* an article on cholera, in which he indicates the treatment that is, in his opinion, most satisfactory. When cholera is epidemic all cases of diarrhœa ought to be attended to, and treated by means of large doses of subnitrate of bismuth. He would also give thirty grains or more of subacetate of lead in four ounces of distilled or boiled water as an enema after each loose evacuation. In cholera no food should be given, but plenty

of acidulated water (without sugar) and ice. Enemas of seltzer water and champagne are useful. Soup, milk, jelly, and toast-water are worse than useless as long as the kidneys do not act, as they only serve as culture liquids for the pathogenic microbe in the intestines. Bismuth is useful in helping the feces to form more or less solid masses together with the septic products of the small intestine, and so retarding absorption in the large intestine. If the stage of asphyxia or general infection comes on he advises recourse, if possible, to oxygen inhalation. Failing these, or as additional methods of medication, rectal etherization and a dose of antipyrin, administered either hypodermically or per rectum, may be tried. Other means, such as rubbing, hot-water bottles, hypodermic injections of ether, alcohol, caffeine—or morphia when there is vomiting—though useful, must be considered entirely subordinate to those first mentioned, of which the writer regards the inhalation of oxygen as the most valuable. In order to treat the kidney affection, which is so frequently the cause of death, warm baths and poultices must be used, and when cerebral symptoms develop ice should be applied to the head, and leeches to the mastoid processes.—*Lancet*, September 13, 1890.

Mushroom Poisoning.

In an excellent article on mushrooms, in the *Boston Medical and Surgical Journal*, September 18, 1890, Dr. Edward J. Foster, says: From a study of the cases where the symptoms developed after eight or twelve hours, more than a very small amount of the fungus had been taken, the treatment by the usual methods of giving emetics, cathartics, astringents or stimulants, combined or alone, has, I find, been universally unsuccessful; but when the chief reliance has been placed upon atropia, the results have been most brilliant. It is true that I have the records of fatal cases where this drug had been given, but in such small doses ($\frac{1}{180}$ to $\frac{1}{60}$ grain), that I was not surprised at the result.

The symptoms indicate a poison whose action is like that of morphia, and if it is to be combated successfully, the same treatment as used for an overdose of that drug must be given, namely, atropia in full doses, one-third of a grain at a time, for instance. One grain of atropia has been given in opium poisoning with success. I have treated at the Boston City Hospital, and reported, a case of poisoning by morphia, where I gave three-fourths of a grain of atropia—one-half grain at once, and one-quarter grain in ten minutes—and saved the patient. Wharton and Stillé state that while one-sixth grain of atropia has caused alarming symptoms, death has not been caused by a grain; therefore, I think that when we have present as powerful a poison as that found in the mushroom, we had best use the antidote in moderately large doses.

The treatment by atropia is based upon the perfect antagonism which exists between this drug and the poison of the Amanitas, which has been separated by Prof. Schmiedelberg, and named muscarin. The poison has been separated by others and variously named, according to the variety from which it was obtained. The merest trace of this alkaloid will arrest the pulsation of a frog's heart; and even after four hours Lauder Brunton states he has caused it to pulsate again by a minute quantity of atropia being brought in contact with the organ. This and other experiments showing the antagonism between these two poisons have been repeated by Prof. H. P. Bowditch at the Harvard Medical School. It acts as well upon mammals as upon frogs. My friend, Dr. F. H. Williams, Assistant Professor of Therapeutics, tells me that he has recently brought the subject of mushroom poisoning and its proper treatment to the attention of his students in the Harvard Medical School.

In the treatment of such cases, general principles should only guide us to remove any of the poison remaining in the alimentary canal, by emetics and purgatives, to support the failing powers by proper stimulation. But the treatment should not stop here; our reliance must be upon an antidote; the poison already absorbed must be counteracted, an antidote must be used; and that antidote, I repeat, is atropia.

Infection with Milk from Tuberculous Cows.

Dr. Karl Hirschberger has made, at the request of Dr. Bollinger, a series of experiments in the Pathological Institute at Munich on the inoculation of animals with milk from cows in various stages of tuberculosis. He attempts to answer the following questions:—1. Do tuberculous cows fre-

quently give infectious milk, or is their milk only exceptionally infectious? 2. In which forms of tuberculosis is the milk infectious—in localized or only in general tuberculosis? He made twenty experiments, and calls attention to the fact that inoculation alone can give decisive results, because it is very difficult to observe tubercle bacilli microscopically in the milk, and impossible to discover their spores. On the strength of his experiments he states that the danger of infection from the milk of tuberculous cows does not only exist, but is very great, being found in 55 per cent. of all cases examined. The more the tuberculosis has spread the greater is the danger; but even in mild cases of localized tuberculosis the milk is, he considers, more or less infectious.—*Lancet*, August 30, 1890.

NEWS.

—Dr. Frederick A. Packard has removed to 131 South Fifteenth street, Philadelphia.

—A report of a burial alive comes from Pittsburgh, Pa., under date of October 22.

—Prof. Theophilus delivered the annual address at Lafayette College, on October 22, "Founder's Day."

—Dr. J. B. Mattison, of Brooklyn, delivered, by invitation of the Directors, an address on the Renal Status of Opium Habitués, before the Philadelphia County Medical Society, on October 22.

—It is reported that a nurse at Bellevue Hospital, on October 21, killed a patient by striking him in the face with his fist. The patient was suffering with delirium tremens, and had spit in the nurse's face.

—King William, of Holland, has recovered his physical strength almost entirely and looks now as though he might live years, but his mental faculties are shattered. He has, it is said, forgotten his name, and is not able either to read or write.

—The friends of Dr. Francis L. Haynes, formerly of Philadelphia and now of Los Angeles, California, have been much annoyed by newspaper reports which contained insinuations in regard to his relations to a companion who was killed, it is said, by Indians in Arizona.

—On October 21, Dr. John B. Deaver at St. Agnes' Hospital, Philadelphia, successfully amputated the left hip of a young woman by what is known as the "Wyeth bloodless operation." Though the operation required almost three-quarters of an hour, it is said that only about an ounce and a half of blood was lost.

—The County Dental Society of Philadelphia has adopted a protest against dentists being classified by the Census Bureau with manufacturers, and instructed its members to decline "to attempt the impossibility of making any returns" upon blanks under such classification.

—The American Humane Society offers two prizes, each of $250, for the best essays on the question whether vivisection should be permitted in the interests of humanity, and, if so, with what restrictions. Essays should be sent to George T. Angell, No. 19 Milk street, Boston, before January.

—The opening exercises of the new Keokuk Medical College were held September 25. Many of the members of the faculty were connected with the College of Physicians and Surgeons of Keokuk until the close of last term, when they withdrew and founded the Keokuk Medical College.

—The Superintendent of Police of Philadelphia has ordered that hereafter when an insane person has been brought to the station and the police surgeon was notified of the fact, and he sends word that he will be there at a certain hour, the police shall find out, if possible, whether the patient has any relatives or friends, and, if so, shall send for them and have them present at the station house to meet the Police Surgeon when he arrives.

—It is reported that the United States Marine Hospital Service will recommend the plan of having a systematic examination of all persons intending to immigrate to this country. This examination would be made by physicians attached to the United States consulates. It is to be hoped that some such measure may be attempted. It is cheaper to keep out the sick, criminal and defective classes, including anarchists, than to support them here or send them back.

—Dr. Clarence Thwing, of Brooklyn, has accepted an invitation to establish one or more missionary hospitals in Alaska, beginning at Sitka. He was graduated about three years ago, since which time he has been engaged in special courses that will fit him for his new and responsible berth. His father, also a physician and a clergyman as well, has become known through his advocacy of the establishment at Hong Kong of an asylum for the insane, which, if he succeeds, will be the first of its kind on Chinese soil.

MEDICAL AND SURGICAL REPORTER

No. 1758. PHILADELPHIA, NOVEMBER 8, 1890. VOL. LXIII.—No. 19.

CLINICAL LECTURE.

AORTIC REGURGITATION. — FUNCTIONAL HEART DISEASE.[1]

BY J. M. ANDERS, M. D.,

PROFESSOR OF CLINICAL MEDICINE, MEDICO-CHIRURGICAL COLLEGE, PHILADELPHIA, PHYSICIAN TO THE EPISCOPAL AND PHILADELPHIA HOSPITALS.

The first patient, J. T., 72 years old, with a negative family and previous personal history, was before you last week, when I diagnosticated for you an aortic systolic murmur and discussed its significance. In cases of aortic regurgitation we hear a murmur most distinctly at the second costal cartilage, on the right side. On ausculting this patient we find a double murmur, or a murmur accompanying both the first and second sounds of the heart. These murmurs do not replace the second sound. Cases frequently occur in which a murmur is heard replacing the second sound. In all cases of diastolic murmurs notice carefully what is their area of diffusion. Some diastolic murmurs may be transmitted to the xyphoid cartilage and to the apex as well. In other cases, diastolic murmurs will be heard for only a few inches down the sternum. When the posterior segments of the aortic valve are affected, the murmur heard will be transmitted to the apex of the heart. When only the anterior segment of this valve is involved the murmur is heard only at the sternum. Cases of aortic valvular disease in which the anterior segment of the valve is the seat of trouble are of graver import, owing to the position of the coronary arteries. In the patient now before you we hear a murmur which is transmitted to the apex and into the axilla. In some of these cases you may hear the murmur in the back and in the arterial branches, even into the radial arteries.

We rarely find a case of aortic regurgitation without constriction being also present, though the reverse is more frequently met with. When two murmurs are associated, we may get one continuous sound between systole and complete diastole. In this patient there exists a distinct pause between the two murmurs.

Let us see what conditions may be mistaken for those present in this case of aortic regurgitation. In our efforts at diagnosis we may disregard all systolic murmurs. The pre-systolic murmur in cases of mitral stenosis might be mistaken for this form of valvular disease. The pre-systolic murmur of mitral obstruction, however, occurs, as its name implies, *before* the first sound; it is best heard at the apex, and the murmur is not transmitted to the axilla, to the back or into the carotids. It is a long, rough, blubbering or churning sound. The murmur of tri-cuspid insufficiency is a soft, short, low-toned, blowing murmur, and is not heard above the third rib. An aneurism at the sinuses of Valsalva may give rise to a murmur resembling somewhat that of aortic regurgitation. In aneurism, in the first place, we will get a history of pain and cough, and later we may find characteristic bulging of the intercostal spaces with dulness on percussion over the same area. The aneurismal bruit is confined to the seat of the trouble, is frequently double, and we will fail to find with it any enlargement of the left ventricle.

The subjective symptoms of aortic regurgitation at first may not be marked, if the heart's action is regular. The patient may suffer with pain over the site of the left ventricle, this symptom being more marked in this form of valvular disease than in any other form. A white line can often be traced on the skin, following the course of the pain and extending to the shoulder. The pain may radiate to the right as well as to the left side. In this patient we may get attacks of angina pectoris. Exertion aggravates the pain and produces dyspnœa and

[1] Delivered in the Medico-Chirurgical College.

palpitation. The patient becomes fretful and dislikes all exertion. As the case progresses these symptoms become more marked. When, through the existence of this lesion, the heart fails to do the work required of it, the left ventricle, from over-distention, first becomes dilated and then often, as here, greatly hypertrophied, and, in consequence, greater amounts of blood are forced into the arterial system; and thus endarteritis is set up in the vessels throughout the body. From this cause we also find produced a form of rheumatism, as in the knees and other large joints. This case illustrates the form of rheumatism *following* and being *caused* by heart lesions, as shown, pain and tenderness around the knee-joints having been only quite recently developed. This rheumatism, if such it may be termed, is due to endarteritis in the vessels surrounding the joints.

Cerebral anemia will soon make its appearance, and will be shown by attacks of dizziness, syncope, etc. The symptoms of cerebral anemia precede those of venous engorgement.

Next, owing to the dilated condition of the left ventricle and nutritive changes in its muscular tissue, we have a loss of contractile power in the ventricle, and through this lack of propulsive force in the circulatory system, venous stasis results and œdema makes its appearance—first in the lower extremities.

In aortic regurgitation, the pulse is regular and full, but it seems to collapse under the examining finger, giving a quick pulse, but without increase in the number of beats in the minute. This peculiarity may be best observed by holding the patient's arm up as I now do, when feeling the pulse. This is known as "Corrigan's pulse" or the "water-hammer" pulse, the latter name because of its vibratory character.

The treatment of this condition is indirect in the earlier stages. In these cases no medicines are given for their direct cardiac effect, unless we find evidences of failing cardiac power. Use dietetic and regiminal methods, such as frictions of the skin. Avoid all violent exercise. An occasional warm bath may be used. We will use, in this case, a preparation of iron, to aid in preserving the cardiac muscle, giving ten minims of the tincture of the chloride three times daily. If there is a decided weakening of the heart muscle, as shown by venous engorgements, we may use tincture of digitalis in five-minim doses, four times a day, and gradually increase the dose to ten minims. If the patient complains of precordial pain, it means that the remedy is not exerting a good effect. When using digitalis we need have no fear of bad effects from the use of the remedy as long as we find an increased flow of urine.

Functional Heart Disease.

The patient I now show you is a young man, 20 years old, whose family history is generally good; though one of his parents died of phthisis. The patient's health was good up to four weeks ago. His habits are good, excepting that he is addicted to the excessive use of tobacco. He has used tobacco, though at first moderately, since he was twelve years old. Four weeks ago he began to suffer with dyspepsia and cardiac palpitation. The day preceding the beginning of his trouble he ate largely of apples and drank a great amount of water. This, then, gives us a history of dyspepsia ushered in by an attack of acute indigestion. The heart-trouble is worse in the morning on first rising, amounting to an attack of violent palpitation lasting from two to three hours, and it is accompanied by extreme apprehension.

Physical examination.—Inspection shows the apex beat at its normal location. Palpation shows the area of heart impulse to be a little increased, due to violence of cardiac action. Percussion fails to show any increase in the size of the heart. Auscultation gives us the following points: the heart's action is sharp and quick, the first sound of the heart lacks the sound of muscular contraction but possesses a stronger valvular element.

This is a case of functional disease of the heart. In diagnosticating functional troubles, besides taking into account the subjective symptoms, we must make a careful physical exploration, with a view to excluding organic affections. In this case two leading causes have been at work in producing the trouble: indigestion and the excessive use of tobacco. Here there is also a nervous predisposition; and this is probably true of all instances of this class of ailments. Other causes of functional disturbances we find in anemia, excessive use of tea and coffee, severe and prolonged mental application, excessive venereal excitement and muscular exhaustion.

The prognosis is good; and such patients must be assured at each successive visit that

their disease is not a fatal one under any circumstances. This piece of positive information will be of inestimable service.

In the treatment we must try to give these patients *immediate* relief from the paroxysms of palpitation which are the cause of the painful mental apprehensions. Try to appreciate the individual's condition and treat him accordingly. You will meet with two leading classes of cases of the affection under consideration. To one class we must give diffusible stimulants, such as ammonia, whiskey or Hoffmann's anodyne; since we find irregularity in the heart's action, and at times the pulse intermits. If the heart is working regularly, but too rapidly, we may use anti-spasmodics, arterial and nervous sedatives, such as bromide of ammonium; or, if this remedy does not act promptly, tincture of aconite root, in doses of two or three minims, three times a day, to be persevered in for two or three weeks. It is in this instance highly important to treat the digestive symptoms. We will use one drachm of essence of pepsin, with ten minims of the fluid extract of cascara and ten grains of bromide of ammonium three times a day.

The cascara is added because the patient has been for a long time troubled with constipation. Tobacco shall be discontinued. Indeed it may be stated as a positive rule, that our efforts to cure these functional diseases will be successful just in so far as we are able to control and remove their known causes. In conclusion, let me urge you to bear in mind the necessity for relieving the mental apprehensions of the patient as frequently as possible by your positive assurances that he has a curable complaint. This patient admits that we have even prevented attacks of palpitation in this manner.

—Biblical units have the following equivalents: A shekel of gold was $8. A firkin was seven pints. A talent of gold was $13,809. A talent of silver was $538.30. Ezekiel's reed was nearly 11 feet. A cubit was nearly 22 inches. A bin was 1 gallon and 2 pints. A mite was less than a quarter of a glass. A shekel of silver was about 50 cents. A piece of silver, or a penny, was 12 cents. A Sabbath day's journey was about an English mile. An ephah, or bath, contained 7 gallons and 5 pints. A day's journey was about 23.5 miles. A hand's breadth was equal to 3⅝ inches. A finger's breath was equal to 1 inch. A farthing was 7 cents.

COMMUNICATIONS.

NERVOUS AND MUSCULAR ELEMENTS IN THE CAUSATION OF IDIOPATHIC LATERAL CURVATURE.[1]

BY BENJAMIN LEE, A. M., PH. D.,
PHILADELPHIA.

"*Propter ovarium est mulier:*" woman, exists for the ovary. The ovary is the dominant in the scale of her physical harmonies. Let that organ lose its normal tone, and discord soon manifests itself in some portion of her nervous system. Up to a certain age it remains dormant, and, given similar conditions of life, training and regime, there is little to mark the difference between the boy and the girl. But when once this gland has taken on its functional activity, all this is changed, and the budding woman becomes liable to numerous distresses and disorders which her more fortunate brother never or rarely suffered from. When both were infants in arms, their backs—that is to say, their spinal columns—were nearly straight, deviating from a right line neither forwards nor backwards, neither to the right nor the left. As they begin to bear their weight upon their feet, to balance themselves and to walk, gradually these straight spines began to curve forwards in the lower segment, backwards in the middle segment, and again forwards in the superior segment. The first of these curves took place in the lower or lumbar region as the results of increased tonicity in two important muscles known as the psoas magnus and the iliacus intemus. The other curves were compensatory in order to preserve the equilibrium of the body and afford all the organs room for free play and complete discharge of function.

But now for the possessor of the ovary comes the monthly molimen which for the next thirty or forty years of her life is to regulate all her movements. This imperious organ becomes engorged with blood, takes on an intense excitement, sets all its nerves to vibrating, and arouses the sacral plexus into a state of sympathetic energy. In many cases the sacral plexus in its turn communicates the unwonted stimulus to the pelvic spinal muscles of which mention has

[1] Read before the American Orthopedic Association, at its meeting held in Philadelphia, September 17, 1890.

just been made. These muscles contract under the stimulus, and the result is a backache such as the sufferer never felt before. The means to which she naturally resorts for relief is to lie down and place her hand or some other firm body under the small of the back. This supports the arch formed by the contraction of the muscles, allows them to relax and diminishes the suffering. When the flow of blood from that obedient slave of the ovaries, the uterus, has relieved their congestion, their excitement diminishes, this intelligence is communicated to the sacral plexus, which in turn telegraphs to the muscles, and they soon subside into their normal condition, only to be again stimulated to undue contraction when the moon shall have completed another revolution around the earth. In many women this pain is slight, in some it is entirely absent; but it is safe to say that it is the most common form of suffering attendant upon menstruation. And even when there is no consciousness of pain, it does not follow that a certain degree of muscular contraction has not taken place. We have these muscles then subjected at very frequent intervals to an influence which unduly excites their contractility. Is it to be wondered at that this intermittent abnormal contractility should sometimes lead to a permanently irritable condition of the muscular tissue? So long as these symmetrical muscles act with equal energy on both sides of the flexible spinal column, its equilibrium will not be disturbed, so far as lateral deviation is concerned. But if, for any reason, those of one side act more vigorously or more persistently than their fellows, the result must be a gradual inclination of the spinal column towards the side of preponderating contraction. The same effect will of course be produced if those of one side suffer a loss of tone. Now bear in mind that these muscles have an entirely different relation to the motility of the spinal column from that possessed by the muscles of the upper part of the trunk, in that their attachments are to a fixed point of support which is in contact with the earth, while those of the former, such as the rhomboideus and trapezius, are two entirely movable points. The direction of action is here precisely reversed. The spine itself is the fixed point, so far as the superior muscles of the trunk are concerned. When they contract, they do not draw the spine towards their opposite extremities, but draw their opposite extremities, with the limbs to which they are attached, towards the spine. Only under one condition can they disturb the spinal equilibrium, namely, when the hand grasps an object which is firmly attached to the earth. Then they act with the same advantage that the pelvic spinal muscles possess in that respect.

There is, however, another mechanical consideration to be borne in mind. Acting from the pelvis as a fixed point or centre, the spinal column forms the radius of a circle. A very slight degree of deviation from the perpendicular near its pelvic extremity therefore means a very considerable deviation at its capital extremity. Hence as the maintenance of equilibrium is the first necessity, a very small lumbar curve will necessitate a large dorsal compensating curve. It is not strange that the comparatively trifling lumbar curve often goes unnoticed and that the large dorsal curve is the first to attract the attention of the mother or the dressmaker. In fact in the large majority of cases the mother does not detect the former, even when it has become aggravated, until the surgeon points it out to her.

I have said that under ordinary circumstances it is not conceivable that the use of the muscles which move the upper extremity should draw the spine towards the extremity. The extremity must of necessity be drawn towards the spine. We cannot attribute the dorsal curve to direct traction by those muscles, however excessively that may be developed. But there is an indirect action upon the equilibrium which must not be overlooked, and which will aid in the solution of our problem. Every time that we make a vigorous movement of the right arm, we instinctively throw our weight on to the left leg, with the double object of preserving the equilibrium and of obtaining a stronger *point d'appui* for the effort. The result of this constant use of the left leg as the antagonist of the right arm, is to make it the stronger of the two. We even find in a large proportion of individuals the left foot the larger. In this general disproportionate development of the muscles of the left leg, of course the pelvic spinal muscles share. If they are in a perfectly healthy condition however, their increased development does not induce abnormal contraction, and there is no disturbance of equilibrium. But if they are in a state of morbid irritability it is not difficult to understand that the excessive strain upon them may lead to

an abnormal contractility approaching tonic spasm.

I do not forget that when this subject was under discussion at the Washington meeting, Dr. Ketch made the statement that, in two hundred and twenty-nine cases of lateral curvature which he had analyzed, he had found forty occurring in boys. This fact, taken as it stands, is enough to point to some sexual influence as a strongly-predisposing cause, showing that only a little over seventeen per cent. of the cases were found in boys. But I strongly suspect that all forms of lateral deviation of the spine were included in this analysis, and that such as are dependent on rachitic degeneration, pulmonary or pleuritic inflammation, inequality in the length of the limbs, and accidents of various kinds, had been eliminated, the disproportion would have been greatly increased.

It is quite possible to conceive that sexual irritation arising from preputial malformation may produce in the male, during the period of awakening sexual energy, precisely the same disturbance of the pelvic ganglia that ovulation does in the female. We know how frequently both paralysis and spastic contractions can be traced to this cause.

Viewing the general question of the precedence of the curves from a clinical standpoint, I would request the members to note particularly in their cases, in the very earliest stages, whether with very slight dorsal curvature and rotation, they do not often observe quite marked distortion of both kinds in the lumbar region. Such has been my own experience, and it was that which led me to the line of thought which I have now hastily sketched.

HYPODERMIC TREATMENT OF ASTHMA.

BY WILLIAM S. HIGBEE, M. D.,
PHILADELPHIA.

Miss E. M., 25 years old, born in Ireland, dressmaker, contracted a severe cold at the age of thirteen, by bathing her feet in a cold stream of water while menstruating for the first time. She was confined to bed for nearly six months suffering with cough, shortness of breath and amenorrhœa. Her menses gradually reappeared, but remained scant and painful. Her asthma occurred frequently and continued until she was eighteen years old, when, under the advice of her physician, she emigrated to America, where she seemed to improve for about two years. After this time, however, her health began to decline gradually, and the asthma returned with greater severity. She returned to Ireland, stayed there one month without relief and again came to this country, after which I saw her for the first time and treated her with indifferent success. Last January she had a severe attack of influenza, and, after convalescing from this, her asthma was decidedly worse. On June 9, 1890, she was bedfast, with her general health much impaired, and with marked loss of weight. Her appetite and digestion were poor, her pulse rapid and weak. There was no albumin in her urine. Loud sibilant râles were heard over the whole chest. Her family history shows that her father, sister and brother and her uncle and grandfather on her father's side were sufferers with asthma.

At this time I gave her morphia sulphate, $\frac{1}{8}$ of a grain, and atropia sulphate $\frac{1}{120}$ of a grain, and ten grains of antipyrin, with ten drops of tincture of nux vomica every four hours, with favorable results; but after giving her this treatment for four days I decided to place her on hypodermic injections of strychnine and atropine, as recommended by Dr. Thomas J. Mays, in the MEDICAL AND SURGICAL REPORTER, April 12, 1890. All other treatment was discontinued, and she received $\frac{1}{50}$ of a grain of strychnine, and $\frac{1}{200}$ of a grain of atropine every other day for two weeks. On account of the profound dryness produced by the atropine, even in small doses, it was then omitted, and the strychnine in the same doses was continued alone until October 1, since which time she has been taking $\frac{1}{30}$ of a grain of strychnine and two grains of Vallette's mass three times a day.

She has been free from asthma for three months, and has gradually but steadily improved. She weighs more than she ever did, and loses no sleep or rest at night; she has a good appetite, and is able again to attend to her business, which she had been forced to relinquish. By October 24, she had gained twenty-three pounds in weight.

—Japan is about to enter the field as a producer of indigo. The soil and climate of parts of the island are stated to be favorable to the cultivation of the shrub, and the Japanese Government favors its cultivation.

TONSILLITIS.[1]

BY FRED. T. KIDDER,
WOODSTOCK, VT.

The tonsils are the two glands which occupy the excavation on each side of the base of the tongue, limited by the pillars of the fauces. They are oval-shaped bodies, and project into the isthmus of the fauces. They may vary greatly in size and still present no pathological changes. Their object seems to be to serve a double purpose. First, the numerous acinous glands, which make up the tonsil, secrete a clear viscid liquid which is destined to lubricate the food and to assist it in its passage through the pillars of the fauces and œsophagus to the stomach. The lacunæ always contain fluid which is poured forth by the contraction of the muscles of deglutition. Second, like the other ductless glands which they resemble, they modify some of the constituents of the blood, aid in the formation of the white corpuscles and contribute to the elaboration of the lymph.

Tonsillitis is an acute inflammation of the tonsil or tonsils which may be superficial or parenchymatous, and may terminate in resolution, suppuration, or chronic enlargement. I shall not speak of those conditions of the tonsil which are symptomatic of general disease, or erysipelas, the eruptive fevers, and traumatism, but simply of those varieties which are classed under the general head of acute tonsillitis, viz.: the erythematous, parenchymatous and follicular or lacunar. The disease is most common in early adult life and is not confined to either sex. Pale, lymphatic children are most apt to have inflammation of the tonsils and one or more attacks make the patient more liable to a recurrence of the inflammation. Cold and dampness, as well as an overheated and vitiated atmosphere together with septic influences, are among the most common of the exciting causes. The symptoms vary according to the form of the disease which is present, from the simple erythematous to the more alarming and painful follicular variety. The first indications of acute superficial or erythematous tonsillitis are a slight chill, with perhaps nausea and vomiting, and a slight elevation of temperature. After a few hours, the patient complains of a dryness about the throat, followed by more or less pain and difficulty of deglutition. There is generally some cough and expectoration of a stringy mucus, which collects in the throat. The tongue is coated with a white fur, the bowels are constipated, and the breath foul. The breathing is rapid, and the temperature may rise to 102° or 103°. At this time the throat and tonsils will be found red and swollen, and at times may be covered with a grayish exudation. These cases last but a few days, and end in resolution; although after repeated attacks hypertrophy of the tonsils may result.

Parenchymatous tonsillitis, or inflammation of the subtance of the tonsil, is in its initiatory stages similar to the erythematous variety, and may appear to be nothing but that at first. After a few days, however, the symptoms increase instead of decreasing in severity, and one of the tonsils begins to increase in size, and becomes much more painful; the swelling extends to the adjacent parts, so that swallowing is almost impossible; and the voice becomes nasal in character or is reduced to a whisper. The inflammation may involve the Eustachian tube, producing pain in the ear, and occasionally acute suppuration of the middle ear. If the disease goes on to suppuration, all the symptoms increase until the abscess either is opened or opens itself. In early life the formation of an abscess is uncommon, and the disease generally ends in resolution.

In follicular, or as it is more properly called, lacunar tonsillitis, the inflammatory process is located in the crypts of the tonsil; a soft cheesy deposit being poured out from the follicles, and forming a number of small patches corresponding with the number of crypts affected. The clinical importance of this variety is considerable; and it is of this that I wish to speak more in detail.

The symptoms from the beginning are much more severe, and it generally runs a more protracted course. Beginning with a chill and all the active symptoms of an acute inflammation, the temperature rapidly rises to 103° or 104°, with a pulse to correspond. The throat has first a feeling of dryness and then grows rapidly worse; the tonsils become inflamed and greatly swollen, and in a few hours are covered with a membrane-like deposit, formed from the secretion of the follicles of the organ. After a variable period of from ten to fourteen days, the symptoms begin to subside, leaving, however, a notable degree of general depression

[1] Read before the Vermont Medical Society.

of the system for many days, as great as many times follows diphtheria; together with paralysis of the soft palate and pharynx. The main source of anxiety in the diagnosis, in the early stages of the disease, is the danger of confounding it with diphtheria, which from the severity and character of the symptoms it strongly resembles. I have no doubt many cases of so-called diphtheria are nothing more or less than lacunar tonsillitis.

Usually the disease can be distinguished from diphtheria by the character of the deposit on the tonsil, which in tonsillitis is easily removable with a brush, and no ulceration is found beneath it; while in diphtheria the deposit in the throat is more in the form of a membrane of a leathery appearance, is more tenacious, and on removal leaves a raw and inflamed spot behind it. But in those unusually severe cases where there is a doubt as to the character of the deposit, if on removal it returns in the course of twelve hours with all its original characteristics, the disease is undoubtedly true diphtheria. In tonsilitis also the membrane is confined to the surface of the tonsil, while in diphtheria it is rare not to see patches on other parts of the throat at the same time. One other, and perhaps the chief, reason for confounding the two diseases is the evident lack of belief in the contagiousness of lacunar tonsillitis.

In the summer of 1886 my attention was called to the fact that it might be contagious, since which time, from the few cases that have come under my observation, my belief in the septic origin of many cases of it has been strengthened. In August, 1886, I was called to see a man suffering with a well-marked attack of lacunar tonsillitis, which ran its usual course and was not very severe. He lived on a farm, with good drainage about the home and good sanitary surroundings. At this time I had never had the slightest trouble with my throat and was in a perfectly healthy condition so far as I know. In nine days I began to feel that something was the matter with me, and especially with my throat. The following day I had a distinct chill, followed by a rapid rise in temperature and fast increasing soreness of the throat, which developed into follicular tonsillitis, so that I was confined to the house about ten days.

In January, 1887, I was called to see a child who was a member of a family consisting of seven persons. I found the child sick with tonsillitis, and the next day a second child came down with the same disease. Upon inquiry I found that an aunt who lived in the family had been sick about ten days before, with what she termed a sore throat, which the mother said had just the same appearance as the throats of the children. In about ten days from the time these two were taken sick, three more came down with the same disease, making six out of the family of seven that suffered from tonsillitis. This was a well-to-do family, and the drainage and sanitary condition of the house were as good as they could be in a country village. I did not see another case of the disease until the following winter, when I again contracted it myself, coming down in about the same time and in the same manner as before.

Last winter I had three cases, two of the patients being mother and son, and the third a young lady who called to see them while they were sick. She was taken sick in seven or eight days from the time she made the call.

Dr. Beverly Robinson says in regard to tonsillitis: "While it is true that many cases of follicular tonsillitis cannot be definitely and distinctly traced to a septic cause, I am more and more convinced that the influence which underlies such evident derangement of the *prima via*, accompanied by chills and anorexia, is due to specific germs or entities present in the body. If we do not find them, I prefer to think that our means of research are not capable of demonstrating them. . . . The resemblance between the symptoms of this disease and those of other diseases, whose pathogenic micro-organism is known, leads me to conclude from analogy that a more or less similar germ is present here also."

I am well aware that tonsillitis in any form has not been generally classed among the contagious diseases; and I have been unable to find any record of cases kept for the purpose of establishing or denying the fact of its being caused by a specific germ, or any suggestion that such might be the case, except in Keating's *Cyclopedia of Diseases of Children*, in an article by Dr. Robinson, part of which I have quoted. Of course we cannot reason from the particular to the general, and the few cases that I have been able to collect do not by any means establish the fact, nor do they go far to prove the contagiousness of tonsillitis. It is true there might have been no contagion about these few cases, and they may have

happened to appear in such regular order from being produced in one by the same cause that produced it in the other; nevertheless in these days when a germ is found for so many diseases that were formerly classed as non-contagious, why is it not possible and even probable that tonsillitis may have a microbe of its own which is capable of being transmitted from one person to another under favorable conditions?

In regard to the treatment I will say a few words. Guaiac is the best remedy, recommended to abort an attack. I have used it with good results in erythematous tonsillitis, but have never been able to abort an attack of follicular tonsillitis by its use. In any case it must be given in the earliest stages of the disease. Tincture of iron is probably used more than any other one remedy. I give it with glycerine—two drachms of iron in two ounces of glycerine, giving a teaspoonful every two hours. I have thought the effect was better in combination with glycerine than by any other mode of administering it. I am not a believer in gargles of any kind; for the reason that the irritation from using the muscles of the throat, as is necessary in gargling, is a disadvantage which more than counterbalances the advantage gained from the remedies. Sprays and inhalations of steam give some relief and are of decided benefit. Whether they tend to cut short the attack or not, they certainly are comforting to the patient. In a severe case sedatives are required, to give needed rest, and they should be administered. Particular symptoms should be treated as each case requires; and one has the satisfaction of feeling that with proper care the patient can be made fairly comfortable and recovery is almost sure to follow.

NECROSIS OF PART OF THE ALVEOLAR PROCESS.

BY C. H. M. NEALL, M. D., D. D. S.,
PHILADELPHIA.

A gentleman called at my office on June 11, 1890, suffering with aching in the three teeth on the left side of the lower jaw—the central, lateral and cuspidate teeth—all of which were badly decayed. In connection with this there was an abscess situated anterior to the teeth and pus was exuding therefrom. I extracted the decayed teeth, and also opened the abscess freely and scraped the cavity, treating it with carbolic acid twenty drops to the ounce, and instructed the patient to syringe out the cavity with the same solution after each meal; so that no food might collect and set up more inflammation. He returned to my office the next day, saying that he was unable to sleep, and his mouth was giving him a great deal of pain. I examined it, and found pus exuding from the cavity, and also a loosening to a certain extent of the first bicuspid. I carried out the same plan of treatment that I did at first. On the 16th of June he returned to my office, and upon examination I found pus also exuding from the cavity; and this time I syringed the cavity out with a 1:1,000 solution of corrosive sublimate. On the 24th he returned, and I cut down through the gums and detached a piece of necrosed bone, extending from the central to the cuspidate in length, and from the alveolar border to its attachment to the lower jaw in width. The hemorrhage was quite profuse, for a very short time; and the odor was very offensive. I syringed out the cavity with the 1:1,000 solution mentioned before, and plugged it with cotton when I removed the bone and directed the patient to remove the plug often during the day and to syringe out the cavity himself. On July 5, he returned to my office, everything doing nicely. The tooth that was loose had become firm, and the parts were closing up.

REPORTS OF CLINICS.

BUFFALO GENERAL HOSPITAL.

ORTHOPEDIC CLINIC.—DR. BARTOW.

Potts' Disease.

This girl, ten years old, had Potts' disease, with beginning kyphosis of the dorsal region. Dr. Bartow said that it is important to recognize this disease at an early stage, in order to institute immediate treatment and to prevent angular deformity. At times it is impossible to diagnosticate between Potts' disease at an early stage and scoliosis, both presenting rotary-lateral curvature; and in such cases it is better to treat by fixation, on the hypothesis that Potts' disease exists.

The child was suspended by the chin, occiput and axillæ, and a sleeveless undergarment was put on, a pad of gauze was

placed over the kyphosis and a thin dinner-pad was applied, and then the plaster jacket was put on, extending from the axillæ to the trochanters.

SURGICAL CLINIC.—DR. PHELPS.

Fistula in Ano.

The second case was one of fistula in ano, in which the fistula was divided on a director and the wound was packed with iodoform gauze.

Abdominal Abscess.

The next case was one in which Dr. Phelps had opened an immense abscess in the region of the cæcum two weeks before. It had been treated on the assumption that it was a perityphlitic abscess, but it had not done as well as he would have liked. The evening temperature on the day before the clinic was almost 102°. There was an immense amount of pus running from the cavity, and even by washing it out twice a day, it could not be kept clean. The pus looked very creamy, as if it might have come from diseased bone somewhere; but on examination the fascia over the psoas was found intact; so that theory had to be abandoned. A counter-opening was made posteriorly and a drainage-tube was drawn through.

Sacro-iliac Arthritis.

The next patient was a girl, seventeen years old, who came into the hospital four weeks previously to the clinic, complaining of severe pain about the hip, with a temperature of 103°, and it occurred to Dr. Phelps that there was hip-joint disease. Pressure on both trochanters as well as on the knees gave pain, and the crease in the upper part of the thigh was apparently less on one side. There was also pain on pressure over the joint in front. The girl was put to bed and extension applied and she had improved very much. She had no fever when shown in the clinic, and there was no pain from pressure on the knee. Dr. Phelps said that Dr. Bartow thought the trouble was in the sacro-iliac joint, and that he had a method of applying a plaster of Paris spica, thereby securing fixation without the weight and pulley, and while the patient was going out of doors.

At the request of Dr. Phelps Dr. Bartow addressed the class. He spoke as follows: "I have not seen this case before. Although the long-continued treatment would tend to relieve the spasm of the joint, it would seem that if there was inflammation of the capsule or tissues about the hip-joint, it would be impossible to draw up the knee as freely as I do now. Pressing the head of the femur inward against the acetabulum is not very painful, all the pain being referred to the sacro-iliac articulation. Pressure over the sacro-iliac joint causes pain as does indirect pressure brought to bear by expansion of the ilia. Pulling on the limb hurt her before, but it does not now. She has had no pain referred to the knee. For these reasons I think the lesion is in the sacro-iliac joint. The treatment is, first, to suspend the patient to get rid of voluntary malposition, leaving simply the reflex, spasmodic malposition. I then apply a spica, using only the weight of the limb as extension, a high shoe being placed on the other foot. The patient will be directed to go about on crutches. After four to six weeks, the bandage is removed, and I often find the deformity almost entirely gone."

The spica was then applied according to the method indicated. The plaster of Paris bandages began at the trochanter and they were continued up well above the pelvis and down to a point two inches below the knee. Three steel strips were included in the bandages on the outer side of the hip and thigh.

SPECIAL CORRESPONDENCE.

LETTER FROM NEW YORK.

Revival of Activity.—The Academy and the Medical Societies.—Skin Grafting by New Methods.—New York and Her Neighbors.—The Death-rate and the Census.—Physicians and Good Government.

Life is again reviving in medical circles after the quiet of the summer. Many of our physicians spent the summer in Europe, the principal attraction being the International Medical Congress at Berlin. The attendance at the Academy of Medicine at its first meeting in the new building, West Forty-third street, October 2, was large. Dr. Loomis presided, and said the formal opening would take place November 20. The building has fifty feet frontage, and presents rather an imposing appearance. There seems to be room enough within to meet every demand of the medical societies in New York for some years to come. It is

not certain, however, whether the Academy and its sections will absorb most of the other societies, or whether the other societies will consent to hold their meetings in the rooms of the Academy, paying therefor a moderate rental. Some might fear that the importance of the independent societies would be overshadowed by the Academy if the meetings were held in that building. Besides, there is a social feature which would seem to be better met in special societies, such as the practitioners, medical and surgical, clinical, etc., by holding the meetings, as in the past, at the private residence of the members, a collation being served after the scientific proceedings. The new hall of the Academy, however, has every accummodation for societies which may wish to make it their home. A finer neighborhood could not be found. On each side and in front magnificent buildings are being erected, one for the Century Club, one for the Racket Club and one a hotel.

At the meeting referred to, Dr. Charles McBurney read a paper on skin grafting after the method of Thiersch, and cited twenty-five cases of extensive ulcers, burns and open surfaces in which he had practiced it with almost uniform success. He made the grafts as thin as possible, taken usually from the thigh, an inch wide by four or five long. The raw surfaces, however large, had usually been covered by skin in less than a month. The cases included epithelioma, cancer of the female breast where the flap could not be made to cover the entire gap, old ulcers of the leg, burns, etc.

Dr. Prince A. Morrow brought out an interesting modification of skin grafting. A man had sustained a burn on the head when a child, but was little annoyed by the resulting scar until recent years, when the surrounding hair began to fall out. He then became somewhat hypochondriac over his appearance, and Dr. Morrow determined to try an experiment for his relief. With the cutaneous spoon-trephine he took buttons from the sound scalp on the opposite side, going through not only derma but also subcutaneous tissue, including the hair follicles, and transplanting four of these immediately into holes of the same size made with the same instrument in the cicatricial tissue. He was gratified to learn that they united within a week, and after several weeks hair grew. Like success in this case attended the transplantation of grafts from another person. The method opened up a new field. It would be applicable, he thought, in the removal of moles from the face which people carried through fear a scar might remain if they were excised.

New Yorkers seem a little jealous for the reputation their city has had of being the metropolis of the country, and notwithstanding they have a good deal to say about how foolish some poor people are in remaining in so crowded a place when there is plenty of room in the West, yet they are anxious to have the Census Bureau give them credit for all the inhabitants present. The truth would seem to be that our citizens are awaking to the need of doing something to prevent our commercial supremacy from slipping away, and probably nothing has done more to impress this need upon them than the growing importance of the West, brought out more prominently by the influence of Chicago in the World's Fair matter. Spurred probably by these reflections and others, a commission appointed by the Legislature is holding sessions on the advisability of uniting to New York Brooklyn, with a population of over eight hundred thousand, Long Island City, with a population of thirty thousand, New Rochelle, etc., to the north, and Staten Island to the south. For commercial reasons (the bridging and tunneling of the rivers, etc.) this would doubtless be very desirable, but there are sanitary reasons as well. Long Island City, for instance, separated from the middle and upper part of New York by the East River, only half a mile wide, remains largely vacant ground, for the reason, doubtless, that it has the reputation, only partly deserved, of being a place of misrule, bad smells from oil works and swamp meadows. Improvements by bridges, tunnels, etc., made on a scale becoming a great united city, would make of this a most accessible and healthful place for business and residence.

Under the pretext of appearing to have a larger death-rate per thousand than is the fact because of the under-estimate of our population by the superintendent of the census, the Board of Health and city authorities have instituted a recounting. It is believed the population is over eighteen hundred thousand, instead of sixteen hundred and odd thousands as made out by Mr. Porter. But however great the population may be, until recently it could not compete for magnitude with the filth of the streets. I say until recently, for during the past two or three months the politicians have been

spurred, by the prick of the public press and the fear of a proposed independent citizens' movement, to expend a part of the immense appropriation for street cleaning in really cleaning the streets. But this is not likely, judging from past history, to continue longer than the fall elections.

One improvement which cannot be too highly estimated is the paving of a number of the cross streets, and Madison and Lexington avenues, with asphalt. It is said there has been a great steal back of it, but the citizens have something of real value to show for the theft, which cannot be said for all the frauds perpetrated by the politicians.

Speaking about the independent citizens' movement for better local government, I saw the names of a number of prominent physicians in the list of delegates to the recent convention, among them being Dr. Loomis, Dr. A. Jacobi and Dr. Landon Carter Gray whose head is said to be the highest of any physician's in the city considering that it is also an extremely large one in circumference, measuring nearly twenty-four inches. The movement is an earnest one, and, with such an amount of brains back of it, will commit no folly. The question of whether candidates will be placed in the field will, probably, depend upon the character of the nominations by the old parties, especially Tammany Hall. It is believed, at any rate, that the Australian system of voting and some other facts are conspiring to bring about some needed reforms in this city, which will make it healthier and more desirable as a place of residence as well as increase its commercial importance. One of the most pressing needs has been fulfilled since the opening of the new Croton aqueduct, by which we are now able to get water even on the top floors of nearly all buildings.

R. C. S.

NEW YORK STATE MEDICAL ASSOCIATION; SEVENTH ANNUAL MEETING.

The seventh annual meeting of the New York State Medical Association was held October 22–24, in Mott Memorial Hall, New York City, a building which the Association has recently acquired as a permanent home for its meetings and library.

The Secretary, Dr. E. D. Ferguson, in his annual report, made pointed reference to the action of Governor Hill in respect to the New York State Medical Examination Bill. The speaker represented the bill as having been rushed through at the end of the session. When it became generally known that it had passed, contrary to all expectation, hundreds of telegrams, and every form of remonstrance was brought to bear upon the Governor to stay his signature upon the ground that the bill was unjust and one-sided. The Governor had replied that he must assume the bill had been well considered in committee and that if the doctors did not like it they could send up another in a modified form next year.

The President, in his address, dealing with the question of medical education, said that while upholding the principle that medical colleges should demand proof of adequate preliminary education from would-be students, he was not prepared to say that the possession of academic degrees should be made a *sine qua non* of qualification to commence the study of medicine. He did not believe that the colleges of this country were below par, indeed there was every evidence of a steady raising of the standard of excellence in the educational material. The fault had been, and still remained, that colleges had opened their doors to inadequately prepared students. In speaking of the medical press of the country, he said it had assumed a proportion and weight of character unequalled in any other branch of literary science or art. To-day a subscription to a reliable medical journal was an investment which would repay with interest many times compounded.

Dr. A. P. Dudley, of New York, in a paper on the Surgical Treatment of Recto-displacements of the Uterus, described a method which he has recently carried out, and so far with excellent results, in four cases. He detailed the steps of his operation upon a case in which there was cystic degeneration of the ovaries. Briefly stated, his method is to open the abdomen, draw out a tube and ovary, puncture and squeeze out the cysts and allow the sacs to fill with first blood. Each ovary, if both are cystic, being so treated, they are dropped back. The uterus, being then drawn well forward, is denuded of its peritoneal covering on its anterior surface, the denuded area being oval. Then each round ligament is brought up and freshened to correspond. With a continuous suture of catgut the denuded surfaces are sewed together and the uterus is then dropped back.

Traction on the round ligaments now restores the organ to a position of anteversion. Dr. Dudley claims that the malposition is rectified without sacrifice of any of the structures, and that the result is accomplished without fastening the organ to the anterior abdominal wall, only its natural supports being used. No interference with the bladder need be feared, and in case of impregnation the uterus would be free to lift in the abdominal cavity. The tapping of the ovaries had caused no trouble and when it could be demonstrated that the tubes were pervious, he thought that the ovaries—now too often sacrificed — might in many instances be saved.

A long discussion on intra-cranial lesions served to demonstrate the fact that while the interest in the question of cerebral topography, with indications for operative treatment, and on the technique of operation is unabated, very little new ground has been broken of late.

Dr. C. K. Mills, of Pennsylvania, thought that the causes of failures and sources of error in dealing with the lesions resulted often from giving undue weight to a class of symptoms which were regarded as determinative of the site of the lesion. The motor signal symptom has been made use of on a large scale, but was often quite misleading. In every unilateral or mono-spasm, whether reflex, dural, nephritic, toxic or hysterical, the spasm really or apparently began with an initial symptom in the limb or face. This might indicate that the beginning of the cerebral discharge occurred in the area of the cortex, which was the seat of the representation of the movements, but it would be unwise to operate with such indications. Occasional conjugate deviations of the eyes and hand had been used as a guide. This was an error into which a thoughtless or ill-informed neurologist might lead the surgeon. The motor symptoms were often only the result of a diffusion of the lesion to the motor areas. In not a few cases of cerebral abscess, sensory or special symptoms might indicate the need of interference, but might not point to the proper site for the operation. All active localized symptoms of the brain, the result of mastoid, or aural disease, unless it was word-definite and left-sided affections, were the result of purulent processes. It was an error in the majority of cases to operate guided by localizing phenomena. In most of the spastic and paralytic congenital and early infantile affections. The greatest success so far seemed to have attended trephining for endocranial hemhorrhages.

Dr. J. D. Bryant thought that a small and presumptively circumscribed injury of the brain substance at the upper end of the fissure of Rolando might incite an advancing cerebral disintegration, sufficient to involve the motor centres associated with this fissure without causing notable constitutional symptoms. Aspiration of the brain as a means of diagnosticating the existence or situation of an abscess, he regarded as a measure of uncertain utility. He thought extensive fissure could begin at some distance from the point of violence causing it, and that its existence might remain unrecognized without an extended exploration. Extensive and fatal vascular complications might be caused at a considerable distance from the seat of an apparently innocent injury of the scalp or skull. When paralysis involving the motor area of the brain, followed a seeming trivial injury of the head, an operation at the seat of the injury was indicated for the purpose of exploration alone, but removal of a compressed brain clot was not necessarily followed by improvement in the symptoms of compression. If the brain did not soon resume its normal relations with the skull death would ensue.

Dr. W. W. Keen, thought that if a lesion could be located and differentiated from other conditions which might produce more or less similar phenomena, and the general indications were such as pointed to the necessity for interference, then the head should be opened. The head had too long been regarded as something apart and different from other portions of the body. He would urge that it should fall into line with other cavities of the body, subject, as it was, to the same diseases and injuries. The treatment might be modified in detail, but should be the same in principle.

An entire session was devoted to a discussion on obstetrics, every point of debatable ground being covered during discussion. Every phase of theory and practice as to the management of the parturial period, obsolete and advanced, found some advocate whose alleged experience seemed to entitle his opinions to unqualified respect to the exclusion of each of the others.

Dr. G. T. Harrison, of New York county, thought that the internal examination of the lying-in woman might be very well dispensed with, or compensated for by external

methods. The same speaker thought that auto-infection, by streptococci invasion of the natural genital secretions, impossible. Vaginal douches should not be given before, during or after the birth. He would employ no manipulative procedures in dealing with the placenta as a whole, though he thought such might be employed with reference to retained portions of decidua. In the same paper this speaker emphasized the importance of ocular confirmation that there was no tear.

Obstetricians of such recognized experience as Dr. S. B. Wylie McLeod and Dr. Darwin Colvin held views and had experiences diametrically opposed as to the removal of, or non-interference with, the placenta after the second stage in abortion. The former had never seen a death from sepsis traceable to retained secundines, while fifty years out of the professional life of the latter observer had been embittered by a fatality, the direct result of failure to carry out what was now his rule, never to leave the parturient chamber until the entire placenta was in his hands.

Dr. W. McCollom thought that between two extremes there was always a golden mean. He would therefore suggest that all medical students should be instructed that, when, in practice, they were called to a case of obstetrics, they should first take a Russian bath, have their hair cut and shampooed and buy a new suit of clothes. On entering the lying-in chamber the physician should, if he had touched the door knob, plunge his hands into a strong solution of carbolic acid or bichloride. Then he should have a steam atomizer casting a spray that would act like a Gatling gun on any bacilli which might have come in out of curiosity or with fiendish intent. The bacteria must then be dug from the finger nails and thrown into the fire. Then after again washing his hands in bichloride this chemically pure accoucheur might make an examination as soon as the lady said the child was coming. The lady should have a constant stream of bichloride thrown on to the genitals or have the nates immersed in a tub, fitted to the bed, full of the same material. If the child, when born, should happen to swallow any of the fluid it might serve to destroy any bacilli of which it might have inadvertently partaken in utero. Of course no competent practitioner would allow the child to drown in the tub. Breach presentations require special care and a sterilized cork should be adjusted within the sphincter and to prevent the meconii-cocci from escaping too soon. On delivery a bichloride pad should be placed to the genitals and hermetically sealed, and not be removed unless under light antiseptic precautions. The speaker, whose remarks were received with roars of laughter, then said his hearers might perhaps think him frivolous, but he had listened to almost as ridiculous instructions from the highest authorities. As a matter of serious fact, let it be an invariable rule to have the *entourage* of the patient as clean as possible. This was the best safeguard against sepsis in whatever complications might arise.

The miscellaneous papers recited little that was new and much that was very old. Dr. H. O. Jewett, of Cortland county, N. Y., made a trite but rhetorical appeal for the more general recognition of phlebotomy as a therapeutic measure.

Dr. Stephen Smith, of New York, the newly-elected President of the Association, read a fine historical paper on the ligature of arteries, developing the statistical fact that American surgeons had been prominent, and in some instances pioneers, in the bolder and most surgically-difficult ligaturing of the larger arterial trunks for the cure of aneurisms.

The *vexata questio* of hypnotism was ably spoken to by Dr. E. Shmid, who dealt with its practical utility in certain diseased conditions. Dr. Dudley recalled the case of a young lady with a bad cough, which nothing could allay. It was at length determined to play upon her religious sympathies. Holy water was prescribed, or what she was told was holy water, a teaspoonful every half hour, and a speedy cure effected. He had just learned from the scientific exposition by Dr. Shmid that this was hypnotism. He often gave water instead of morphine and it did just as well. He was quite prepared to admit that these were mental conditions beyond the control of the patient.

—Women druggists seem to be very few, considering the extent to which members of the sex have engaged in other professions. A Chicago druggist, recently interviewed, knows of but three in that city. One of these is a woman who has charge of the store owned by her husband. He says he does not know why there are not more women in the drug business. It seems that there is a field for them here.

PERISCOPE.

College Athletics.

Professor W. M. Sloane, in *Harper's Magazine* for November, says: The subject of athletics as a permanent element in school and university life should be viewed from several aspects. The first one is trite enough: that, as patriots and educators, college managers are bound to provide physical education as well as moral and mental. This is admitted on all hands; the question is how to reach the result. Some would have military drill, discipline, and uniforms, with an instructor from the officers of the regular army, as provided gratis by the general government. Others would take the dimensions of every limb, the proportions of the body, and auscultate for every defect in lungs and heart, and then, under medical supervision, provide the apparatus needed to expand the chest, or draw down a shoulder, or decrease the waist and send the young Apollo with his perfect proportions and graceful walk on his journey through the world. A third method is to provide a free gymnasium, also with a competent instructor, leaving its use in preparation for sports of various sorts to the option of those who engage in them, or wish to, and provide a stimulus for the largest possible number to use it by the development of the glorious and exhilarating out-door games—base-ball, foot-ball, lacrosse and rowing—in the management of the students themselves.

It is clear that the first of those propositions would add a new study to the student's already overburdened course, and emphasize unduly the military conception of life in our civil institutions. The second must go down under the simple consideration that it makes work out of play, and like the former destroys all spontaneity and initiative on the part of the student. If military drill and gymnastic exercises are really a portion of a liberal education, make them so openly, incorporate them in your scheme, but still leave time for recreation. The third one, therefore, is the correct conception. We firmly believe in the value of physical training, but athletics is quite another thing, for it includes the moral element in the conduct of sport, which is second to no other.

The time of college years is too precious to be devoted to the work of mere physical training. Yet recreation is essential. When young men, therefore, play from the love of it, they get both. And as intercollegiate sports were managed for many years, they get far more, namely, the experience of large enterprises; the character of generous submission to defeat, with perseverance to begin all over and try again; and self-restraint, with courtesy to the weaker, in victory. This was so when out-door sports were conducted for the sake of sport, as they once were, and will be again when the true bearings of harmonious co-operation and pluck upon winning shall be rediscovered. It is certain that in the intense rivalry of such contests victory will go only where fine traditions are guarded, and spirit perpetuated by the active interest of every man according to his powers. Any in-door recreation or exercise, while it has its place, is, after all, a poor shift for out-door sport. It is a serious truth that other nations wonder at the proud position of the Anglo-Saxon race, and that they attribute the fine ripe qualities of maturer life to the beginnings born on playing fields and matured in the seriousness of conflict. These mimic battle-fields demand the same qualities as real ones, and no great game is won without the moral support of the non-combatants. Union, organization, enthusiasm, pluck, high principle—every one of them is as much the price of athletic as of martial victory. It is humiliating, when we have the precious possession of taste and power in such a matter, to find it belittled and discouraged in so many ways. Instead of being grateful for the Spartan element in the training of its youth, America is either ignorant of its value or opposed to its exercise entirely.

Sexual Life of Women after Castration.

Dr. F. Keppler, of Venice, presented a paper at the Medical Congress at Berlin, embodying the results of a study he had made in the cases of ovariotomy performed by him. As reported in the *Medical Record*, September 20, 1890, he has performed castration of women 46 times, obtaining a cure in 39. These operations were performed for the relief of purulent or gonorrhœal salpingitis, oöphoritis, fibroid tumors of the uterus, etc. The following were his conclusions, derived from a study of the physiological consequences of these operations: 1. When the operation was performed on account of sal-

pingitis or other inflammatory process, uterine hemorrhage never occurred subsequently. 2. The conjugata become gradually shortened, and this was the more marked, the younger the individual was when operated upon. 3. The uterus became atrophied, the vagina grew shorter and narrower, its mucous membrane became paler, and the labia majora were somewhat thinned. 4. The breasts grew smaller, acquiring a strong resemblance to the male mammæ. 5. The brown pigmentation of the nipple, areola, perineum, and anus disappeared wholly, as did also pathological pigmentation existing in some of the cases; the hair also turned white. 6. The tendency to embonpoint, which is generally believed to exist after these operations, was not observed by the author. 7. No changes were observed as regards the growth of the hair or the tone of the voice. 8. The sexual desire remained, and was the more pronounced the earlier in life the operation was performed. 9. The operation offers no impediment to marriage; three of the author's cases had married and had lived happily with their husbands for years. 10. A marriage with a castrated woman is the ideal Malthusian marriage, and the only way the Malthusian idea can be carried out without endangering the health and happiness of the woman. 11. In the cases operated upon in early life for inflammatory conditions, no neuroses were seen to develop, which was not the case when women were operated upon late in life for fibroid tumors of the uterus. 12. A favorable influence upon the hemorrhage was observed after operations for myoma, yet in no case did the menopause at once set in. 13. In cases of operation for uterine fibroma, the patients, even those in full maturity, lost all sexual inclination after the operation.

Brain Surgery.

In a paper on Surgery of the Ventricles, read at Berlin by Dr. W. W. Keen, of Philadelphia, *Medical Record*, Sept. 20, 1890, he concluded that injuries involving the ventricles, the result of a compound fracture or of trephining, and involving great disturbance of the cerebral substance, are not necessarily fatal; for ten of the twenty-six cases he reported had recovered. In these cases compound fractures and extensive injuries seemed to be less dangerous than rupture of the ventricle from simple fracture. Dr. Keen said they should be treated antiseptically in precisely the same manner as are wounds in other parts of the body. If pus forms, or the cerebro-spinal fluid becomes dammed up, causing symptoms of pressure, incision and free drainage should be resorted to.

In cases of simple fracture involving the ventricles, Dr. Keen thinks it wise not to attempt any operative procedure unless threatening symptoms supervene. If necessary to interfere, he recommends that the cyst containing cerebro-spinal fluid should be continuously and slowly drained with a small bundle of horse-hairs, rather than by free evacuation. He believes in the majority of cases constant pressure and little active treatment would meet such symptoms as might arise. Possibly slight pressure would be all the treatment that would be necessary.

Abscess of the brain bursting into the lateral ventricle has been thus far uniformly fatal, and demands the promptest treatment possible. He thinks bilateral trephining and irrigation of the ventricles can do no harm, although the possibility of its doing any good is but slight.

Surgical procedures for tapping the ventricles for hydrocephalus are easy, and do not involve great danger. Whether or not they will cure the disease is not yet settled. In acute effusions tapping, with or without drainage, will save some lives otherwise doomed to be lost; and in the chronic form, long continued slow drainage at an early period is worthy of a trial, and offers a reasonable hope of success in a few cases.

After trephining and tapping of the ventricles, irrigation of the ventricular cavities from side to side is not only possible, but does no harm. In abscesses involving the ventricle, and possibly in other conditions, it may do good. The fluid used for such irrigation should not contain anything which, if retained and absorbed, might do harm. An artificial cerebro-spinal fluid, or a simple boric acid solution, seems to Dr. Keen to be the best for such use.

Convulsions, due to too rapid withdrawal of cerebro-spinal fluid, may be checked by the injection of an artificial cerebro-spinal fluid. In either irrigation or injection of the ventricles it is desirable that air should not enter; but air does not seem to do any harm.

In hemorrhage into the lateral ventricles, at least of a traumatic origin, Dr. Keen thinks that immediate trephining and evac-

uation of the clot should be done, and that in some cases this will probably be followed by a cure.

Oxaluria and Oxalemia.

It is a question whether the more or less constant presence of an excess of oxalates in the urine constitutes a disease *per se* or is but a symptom of some more remote condition. In the absence of a known cause we may apply to the manifestation the qualification idiopathic, just as in the present state of knowledge we do with regard to anemia and epilepsy. In the *Münchener Medichinische Wochenschrift*, August 26, 1890, Dr. Neidert refers to two cases, reporting one in detail, the symptoms of which he associates with the existing oxaluria and, to use his designation, oxalemia. In both cases one of the parents was diabetic. The nervous symptoms were the most prominent. There occurred paroxysms attended with severe cardiac palpitation—especially at night, a distressing sense of oppression and asthmatic seizures. Restlessness was marked. There was tremor, choreiform movements, and a staggering gait. Nervous dyspepsia made an additional complication. An attack of syncope was followed by increase of already excessive thirst, and by failure of appetite. Frequent examinations of the urine, which was passed in large amounts, failed to reveal the presence of sugar; but oxalate of lime was found in amounts out of all proportion to the amount and kind of food taken. There was loss of flesh and strength. Investigation permitted the exclusion of acute or chronic disease of the stomach.

The view of Neidert is that in oxalemia there is an abnormal production of oxalic acid from the tissues of the body, owing to alterations in the central nervous system. In connection with the influence of heredity, he believes, in his case at least, that the oxaluria is only a preliminary stage of a diabetes.

Secretion of Milk in the New-Born.

P. G. Variot made some remarks on this subject before the *Société médicale des Hôpitaux de Paris*, July 25, 1890. He is convinced that it is not in the first days which follow birth that the secretion of milk is most abundant, but generally on the eighth or twelfth or even the fifteenth day. At this time the glands jut out like two small watch-glasses applied to the chest, and, when the milk has not been evacuated, the mammary region is raised, forming a small, round tumor the size of a hazel-nut. The skin covering the gland is often reddened. Palpation gives a sensation of puffiness. Pressure to squeeze out the milk is painful, as it would be in a wet-nurse with engorged breasts. It is known, he says, that the development of abscess of the breast in the new-born is by no means less frequent than in a woman who is nursing, and that in each case a good way to prevent it is to empty the milk ducts. [A dangerous suggestion.—ED. REPORTER.]

On compressing the gland slightly when the secretion of milk has been well established, that is to say at from the eighth to the fifteenth day after birth, it is not rare to squeeze out two or three cubic centimeters of a liquid which presents all the external characteristics of milk. Chemical analyses made at the instance of Gübler have finally proved that the milk of the new-born contains all the principles essential to the milk of an adult woman—in proportion a little less and a little variable, it is true. This agrees substantially with the analyses which he had made by Lecocq. Thirty-two children, girls and boys, varying in ages from three days to nine months, were examined for the presence of milk. It was present in all but six, of course varying in character and amount. He concludes, therefore, that this function in new-born children is a constant occurrence, though it is only temporary in duration. Emaciation, and even extreme cachexia, do not not appear to exert any checking influence upon it, as these conditions are well known to do in women.

Retarded Syphilis.

Dr. Brocq writes to the *Journal of Cutaneous Genito-Urinary Diseases*, September, 1890, that Dr. E. Besnier has insisted quite recently in his clinics upon a fact quite common but of great practical importance. Recently a young man presented himself for consultation at the hospital with an indurated lesion of the lip having all the characters of syphilitic chancre, accompanied with a retro-maxillary adenopathy, which confirmed the diagnosis. Nevertheless, the patient would not admit that he could be syphilitic; for he contended that he had not been exposed to any contamination. The treatment was postponed in order to convince

him by the appearance of secondary phenomena. At the end of three months' observation nothing had been developed.

The conduct of such a case is most delicate. A diagnosis of syphilis seems indubitable, and we know that sometimes roseola may not manifest itself until quite late; it may be retarded until the sixth month, as Ricord has demonstrated. We know also that a chancre having all the characters of a syphilitic chancre may never be followed by general accidents. Should we nevertheless institute specific treatment, or await the development of other symptoms denoting a general infection of the economy? Dr. Besnier believes that this latter practice should be adopted only in the presence of really doubtful cases.

The Bites of Spiders.

A good deal of doubt exists as to the possibility of the bite of the spider determining in a fatal result, although plenty of alleged cases are on record in ancient literature. Several more recent cases have been published at different times in *Insect Life*, a monthly periodical published by the Entomological Service of the United States. Most of these cases are ascribed to the *latrodectus mactans*, an American spider, bearing a strong resemblance with the *latrodectus magmigniatus*, or genus met with in Southern Europe, and particularly in Corsica, where it has been accused of inflicting fatal injuries. In the first of the cases quoted in *Insect Life*, death is alleged to have taken place in fourteen hours, the victim being a man in perfect health. The pain was extremely violent; there was hard œdema of the arm and neck, and death was preceded by coma. In six other cases recorded by Corsen, of Savannah, the symptoms, though severe, did not terminate fatally. Four of the victims belonging to this series were bitten during defecation, and in addition to the pain, tetanic spasms were noted, lasting several hours, respiration being dyspœnic and the pulse rapid. Unfortunately for science, the insect could in no instance be identified. The symptoms were the same as those embodied in the report drawn up by M. Graells for the Academy of Medicine of Barcelona in 1833, on the effects of bites inflicted by the malmignate. This observer insisted on the sense of constriction in the throat, tenesmus, opisthotonos and general tetanoid convulsions followed by loss of consciousness. In New Zealand there is also a spider, the *latrodectus scelio*, which is credited with similar powers, attacking persons engaged on the seashore, but the effects are narcotic rather than tetanic. Usually the use of morphine hypodermically and the administration of stimulants have averted a fatal issue even in serious cases, but the treatment is purely empirical, for as a matter of fact, little or nothing is known of the nature and physiological action of this class of toxic agents.—*Medical Press*, September 3, 1890.

Strychnine as an Antispastic.

In the section for neurology and psychiatry of the International Medical Congress, at Berlin, August, 1890, Dr. Benedikt, of Vienna, read a paper on strychnine as an antispastic. He was led to employ it for this purpose through noticing its effects in a case of chorea minor in a girl twelve years old. The patient had received previously other medical treatment, and treatment by electricity and hypnotic suggestion, but without result. The disease manifested itself as a mimic chorea consisting of disagreeable snapping movements, and by convulsive movements having the character of chorea minor and affecting the extremities. Strychnine subnitrate, in doses of one-twentieth of a grain, was ordered in pill form from three to five times a day. The effect upon the facial movements, which had the character of chorea major, as well as upon the other convulsive movements, was striking, and the patient was cured as the result of this medication.

Benedikt says that at first he was surprised, but on second thought still more surprised at his surprise, for he has known for twenty-five years that paralysis and spasm are not antithetical, that irritation of nerve centres and paths produce spasm, while destruction of the same causes palsy, and that the designation of convulsions by Romberg as hyperkinesis is erroneous. Convulsions are rather symptoms of disease of the centres and conductive paths, which have nothing to do with voluntary movements in the proper sense—that of Sir Charles Bell. Moreover Benedikt says he has always emphasized the fact that in the majority of cases of convulsive conditions, there is not a state of irritation of the convulsive centres and conductive system, but, on the

contrary, one of aplasia, atrophy and destruction of this system. Hence it is not astonishing that an agent which in the physiological state excites convulsions, cures convulsions if they are produced by a condition of lessened nutuition of this system.

Since Benedikt's first success with strychnine in chorea he has experimented with it, and has obtained favorable results—although not with great constancy—in forms of chorea major, especially in the phonetic-respiratory, and in general in those cases which are to be regarded as neuroses without lesion.

Dislocation of the Testicle.

Mr. E. H. Howlett writes to the *British Medical Journal*, September 13, 1890, an account of an accident of such rarity that it is well worth repeating his story here.

A man 65 years old, four years before Mr. Howlett saw him, in 1886, at the Infirmary, had been knocked down by a cart, the wheel of which passed obliquely over the left side of the abdomen, crushing the scrotum.

On making a careful examination, in addition to the spinal symptoms, for which he came for treatment, Dr. Howlett found the following extraordinary condition of the genitals. The right testicle was in its place and healthy, the left was absent from the scrotum, but was found lying on the left side of the body of the penis. The epididymis was drawn up close to the external ring, and was felt to be connected with the testis by a cord, which to the touch gave the sensation of a normal vas deferens. The testis itself seemed healthy, was of good size, and tolerably firm to touch, whilst pressure upon it caused the usual testicular sensations. There was no doubt either on the part of the patient or Dr. Howlett, that the body on the side of the penis was the left testicle. It gave rise to no inconvenience, as Dr. Howlett was given to understand that for some time the penis had been limited in its functions to those of an aqueduct.

Prohibition of Hypnotic Performances in Russia.

The *British Medical Journal* states that the Russian Medical Department in August, 1890, issued a circular which declares, "in consideration that public exhibitions of hypnotism cause considerable injury to the health of subjects experimented upon as well as of spectators witnessing the experiments, the performances being apt to give rise to the development in hypnotized persons of various hysterical, nervous, and even mental affections, which may sometimes amount to a genuine epidemic of hypnotic mania; that such public hypnotic entertainments offer to evil-minded persons a good opportunity for studying methods of hypnotizing, and for subsequently practicing them for various immoral or criminal purposes; that generally such hypnotic performances, being not accompanied by any rational explanation, can breed in the public only erroneous notions and even implant superstition, while post-hypnotic suggestions can constitute a source of disturbance of order and the place of the community by hypnotized persons, and even of committing criminal deeds by the same, the Medical Council has resolved: That henceforward any public *séances* of hypnotism and magnetism are strictly prohibited; and that the application of hypnotism for medical purposes can be permitted solely to medical practitioners, under the condition that the operation is to be practiced invariably in the presence of other medical men."

Pemphigus Neuriticus.

Zmigrodsky, *Bolnitchnaya Gazeta Botkina*, May 30, 1890, reports a case of pemphigus, which he thinks is rather rare as regards the etiology of the affection. The patient sustained a fracture of the femur and an injury to the sciatic nerve; she was subject after that to neurotic pains along the course of the latter, and at different intervals —twenty-three times during ten months of observation—had the characteristic pemphigus eruption along the peripheral branches of the stiatic nerve. That pemphigus was of neurotic origin in this case, the author believes to be proved by the fact that the patient suffered intense pain in the parts just before the eruptions occurred; that the muscles of the injured limb were undergoing progressive atrophy, and there was anæsthesia of the limb.

Though unable to give more scientific proof of the affection being neurotic, author is convinced that it was due to nerosis of the peripheral nerve branches.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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EXCISION OF THE RECTUM WITH PRESERVATION OF THE SPHINCTER OF THE ANUS.

The treatment of malignant disease of the rectum has always presented great difficulties on account of the inaccessibility of the part. When the disease has been too extensive and too high up to make removal by the anus possible, the usual practice has been to approach it from the front, by opening the belly, and, after excising the diseased part, to make an artificial anus in the iliac region. It frequently happened under this method that the patient passed through a critical operation (or he did not), and in the end had only a miserable existence. In 1885, Prof. Kraske, of Freiburg, proposed to approach the disease from behind, by cutting down to the coccyx, separating it, and, if necessary, chiselling away part of the sacrum. In this way it is possible, after excising the diseased portion of the rectum, to unite the upper healthy portion of the rectum to the preserved sphincter of the anus. The preservation of this muscle makes the life of the patient comfortable; without it he is miserable.

In a communication to the Société de Chirurgie, of Paris, May 28, 1890, Dr. Paul Reclus reported a case of cancer of the rectum in which he had excised the rectum and had succeeded in preserving the sphincter with its functional activity. The patient was a man, forty-seven years old, vigorous and robust. The cancer extended to within about two inches of the anus, and measured not more than one and one-half inches in one direction by two and one-third inches in the other. Infiltration had not gone beyond the mucosa, and the tumor was entirely movable, without any adhesions to the pelvic organs; it was therefore a favorable case for operation. Dr. Reclus followed Kraske's method by cutting posteriorly down upon the coccyx. The separation of the periosteum of the latter and of the sacrum gave rise to profuse hemorrhage, but this was controlled with tampons. The incision gave access to the rectum after exsection of the coccyx and one sacral vertebra. The indurated portion of the rectum was then removed, the incision extending for about one-third of an inch into the healthy tissue. Search was made for enlarged glands, but none were found. The upper end of the bowel was then drawn down and united by sutures to the sphincter, after being reduced in circumference like the mouth of a purse, so as to accommodate its larger caliber to that of the sphincter. The long ends of the sutures were carried out through the anus. A large drainage-tube covered with gauze, as recommended by Poncet, of Lyons, was inserted into the rectum to facilitate the passage of gas. The posterior incision was then sewed, only an open space for safety, stuffed with iodoform gauze, being left above the sphincter.

The result of the operation was excellent.

The temperature never rose above 99.5° Fahr. A fistula was feared, but it did not form. Immediate union was obtained. On the tenth day the tube to facilitate escape of gas was removed, and the patient was purged. In less than four weeks the patient went home entirely well.

This operation, as Reclus very justly remarks, is better than one resulting in an artificial anus; for in the former the patient has control of his stools. But it cannot be performed when the cancer is very large and adherent; for extirpation is then very dangerous and, if it does not result in the death of the patient, only gives him the equivalent of an artificial anus. It is better, therefore, when the cancer is large and adherent, to form an artificial anus at once, as the mortality of the operation for this purpose is, at the present time, almost zero.

AN ALLEGED ABORTIONIST.

The MEDICAL AND SURGICAL REPORTER, on May 1, 1890, called attention editorially to the case of a physician in Easton, Pa., who was suspected of being an abortionist, and published an account of an interview held with this physician by a representative of the REPORTER and certain letters which had passed between them. This publication was followed by the indictment of Dr. Fackenthal for criminal abortion in the case of a young woman, and he was recently brought to trial before the Northampton County Court. The defense attempted to prove that this girl visited the doctor's office for the purpose of ascertaining whether she was pregnant; in which case her lover had promised to marry her. Her first visit was made on February 26, 1890, when, as she stated, she was examined by means of an instrument which was identified as a Fergusson speculum. She also stated that she experienced a sharp cutting pain. Her testimony was not clear as to whether another instrument was also used, though at times she would admit that an instrument like a uterine sound had been employed. The doctor testified that at this time he could not determine her condition accurately, but gave her a bottle of medicine, which subsequently was found to contain a solution of bromide of potassium. Her next visit was one week later, March 5. At this time she was also examined with instruments, and twenty-four hours later she was taken sick and sent for a physician, who refused to take charge of the case because he suspected, from statements made by the family, that Dr. Fackenthal had attempted an abortion. Dr. Fackenthal was accordingly called in, and treated the case until after the passage of the fetus, and in fact throughout the entire illness of the girl, which was at one time considered sufficiently serious to necessitate the calling in of an alderman, to take an ante-mortem statement. She however recovered after a prolonged illness. The fetus was preserved, and on examination was found to have a large ecchymosis on the head and also two small punctured and contused wounds on the trunk. A microscopic examination of these ecchymoses showed them to be certainly ante-mortem. The evidence, as produced by the prosecution on the trial of Dr. Fackenthal, showed that the girl had visited his office twice within one week—an interval too short to be of any aid in detecting any progress in a case of pregnancy; and that instruments had been used on each occasion—which would evidently not have been necessary in determining the fact of pregnancy, and that within two days after the last visit symptoms of miscarriage began. The girl herself was a very unsatisfactory witness and on cross-examination frequently contradicted her own statements. As she was one of the most important witnesses of the prosecution her testimony proved far from beneficial to this side of the case.

Some of Dr. Fackenthal's testimony was highly interesting from a medical standpoint. In trying to account for the injuries found on the fetus, he stated that in cases of

miscarriage so much force was at times necessary in delivering the fetus that he frequently pulled off arms or legs, or even the head in extreme cases. He also stated that if no instruments were at hand, he at times used a lead pencil, in connection with one of his fingers, as a pair of forceps, to further aid in the delivery; and if he had no pencil he was accustomed to cut a limb from a tree for the purpose. He asserted that the speculum was necessary for the diagnosis of pregnancy, and that it could be used to exclude other conditions that might simulate pregnancy by suppressing the menses, such as tumors (!) also, that he had practiced *ballottement* in this particular case, though the girl had been pregnant less than three months. He further said that the placenta was formed before the fetus.

The defense undertook to prove that a probe could not be passed into the uterine cavity through a Fergusson speculum, and produced Thomas's *Diseases of Women* as proof of this.

The letters written by the representative of the REPORTER and by Dr. Fackenthal—which were published in the REPORTER—were admitted by the defense to be genuine, and were of importance as bearing upon the general character of the latter, but did not pertain directly to this case.

The judge in his charge to the jury reviewed the evidence and instructed them that, if they were unable to convict the defendant on the evidence bearing directly on the offense named in the indictment, they should bring in a verdict of not guilty. He stated further that they were not to be guided alone by the evidence brought out by the MEDICAL AND SURGICAL REPORTER in the letters and reported interviews of its representative with Dr. Fackenthal. The judge also referred to the grave nature of the charge and the effect in case of conviction on the family of the accused. Under all these influences, the jury, after deliberating for about three hours, brought in a verdict of not guilty.

PSEUDO-TYPHOID BACILLI IN DRINKING-WATER.

The strong tendency of current pathological teaching to ascribe all infectious diseases to the action of specific germs or their products has led to an extensive study of bacteriology. In spite of the fact that this branch of medicine is so recent, its literature is enormous already, and what is not known of course vastly exceeds what is known. The germs being microscopic, their forms and size can help but little in differentiating one from another of the same group, and hence reliance has to be placed upon the shape, size, color and other characteristics of pure cultures growing in mass in a culture medium. It is possible to make mistakes even when these are observed, unless the person making the observations is unusually skilful. To illustrate this fact, we may refer to an article entitled "Notes on Pseudo-typhoid Bacilli found in the Waters of the Riviera," by Dr. Cassedebat, published in the journal of the *Société de Biologie*, June 29, 1890. Cassedebat has found in the waters mentioned three bacilli which resemble very closely the true typhoid bacillus of Eberth.

He gives in detail the points of similarity between the true and false forms, and also the points of difference. As regards the latter, it appears that cultures of the typhoid bacillus in milk give an acid reaction after four days, whereas two of the pseudo-typhoid forms give an alkaline reaction. Cultures of the bacillus of Eberth made on a one per cent. solution of peptone in an incubator, become very cloudy in a few hours and never present any other peculiar feature.

One of the false forms produces after the second day a fine pellicle without clouding the liquid, and a second false form both clouds it and produces a thicker pellicle on the surface.

Peptonized bouillon sowed with Eberth's bacilli, either at the temperature of incubation or at the temperature of the labora-

tory, are clouded more or less rapidly; while two of the false forms produce on the first day a thick pellicle, which in one case is very resisting and breaks up into lumps in the other.

In the incubator, cultures of the false typhoid bacilli in bouillon and in milk, when stained with the colors suggested by Nœggerath, give special characteristics more or less peculiar to each. These Cassedebat describes at length.

Enough has been said to justify the conclusion of Cassedebat, that when an investigator finds in water bacilli having the morphological characters of those of Eberth; when these bacilli form colonies similar to the latter; when this resemblance is continued in cultures on potato—even then, he ought not to assert that they are typhoid bacilli. It is absolutely necessary, before making such an assertion, to cultivate each of these bacilli and to compare the results with those obtained with the bacilli of Eberth.

The second conclusion of Cassedebat is also highly important. He says: "It is impossible to give even an approximate estimate of the number of typhoid bacilli which may be contained in a quart or in a cubic centimeter of water, for example, without having subjected to the same control experiment each one of the colonies resembling those of Eberth's bacillus."

The bearing which these observations of Cassedebat have upon the asserted presence of typhoid fever germs in drinking-water, when these assertions have been made by bacteriologists of only moderate skill and experience, or by chemists with no knowledge of bacteriology, is too clear to need further exposition. The lesson to be learned is, first, one of modesty on the part of those who make reports upon the unwholesomeness of water supplies, and, second, one of encouragement to those who have been slow to believe all the evils that have been said to exist in water that does not look pure.

A VETERINARY HOSPITAL.

The Veterinary Department of the University of Pennsylvania has opened a free clinic for animals needing veterinary treatment, and will maintain an ambulance service in connection with it. This will bring the admirable equipment of this Hospital within the reach of many who otherwise could not receive its benefits.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

LES ANESTHÉSIQUES. Physiologie et Applications Chirurgicales. Anæsthetics. Physiology and surgical applications. BY A. DASTRE, Professor of Physiology at the Sorbonne. 8vo, pp. xi, 306. Paris: G. Masson, 1890. Price, five francs.

Dastre has set himself the task of searching out the origin of anæsthesia, of exhibiting the facts and theories relative to the agents most commonly used—ether and chloroform—and of making known the long list of new agents which have since been added to the first.

As regards the relative safety of ether and chloroform, he says the former appears to be less dangerous than the latter in the first stage of anæsthesia, since the heart is less likely to stop before the respiration under the administration of ether than under the administration of chloroform. But he declares that the expression of a general and exclusive preference in favor of one anæsthetic is an error similar to that of the physicians who, without taking account of the indications, desired the French Academy, in 1833, to choose between blood-letting and purgatives in the treatment of pneumonia. There are some cases in which chloroform is proper; there are others in which ether is preferable. Ether, he says, should be preferred when, from the condition of the patient or other causes, secondary syncope is dreaded, or when a patient has a lesion of the right heart and of its orifices as a result of a chronic affection of the lung. On the contrary, in prolonged operations, or where there is a lesion of the left heart, or for children, chloroform is preferable.

There is a great deal to be said in favor of Dastre's views, and much could also be said on the other side. Patients have lost their lives, especially in abdominal sections, apparently from prolonged etherization. It seems to be true that, for children and in gynecological operations, chloroform is growing in favor. But many, at least in the northern and eastern portions of the United States, would not dare to give chloroform to a patient in whom any disease of the heart existed; while, on the other hand, it is regarded by some as preferable for persons with disease of the kidneys or atheroma of the cerebral vessels.

In general it may be said that when a surgeon has had large experience with a particular anæsthetic, he will have fewer accidents if he employs that one and no other. This one, whatever it be, is the safer *for him*.

Dastre's book is a timely contribution to a subject

now exciting the greatest interest, and as it is full of information it cannot fail of being welcome.

LITERARY NOTES.

—The *Illustrated News of the World*, which is the American edition of the *Illustrated London News*, maintains its high character of literary and artistic excellence. It is especially strong in the direction of pictures and descriptions of scenery and life in widely separated parts of the world. Of late there have been a number of illustrations of ships of war of the various nations. The number for October 25, contains a very handsome representation of a Russian cruiser. The editorials by Mr. James Payn are always interesting, as might be expected of so shrewd an observer and so brilliant a writer.

—*Scribner's Magazine* for November is an extraordinarily beautiful and interesting number. To physicians articles of peculiar interest will be found in the papers on "Dr. Materialismus;" "The Training of a Nurse" and "A Day with a Country Doctor."

NOTES AND COMMENTS.

Estimation of Nitrites in Drinking-Water.

Dr. J. C. Thresh, Medical Officer of Health for Chelmsford and Maldon, read before the British Pharmaceutical Conference, September 2, 1890, a paper on the quantitative determination of nitrites in drinking-water, of which the following abstract is contained in the *Chemist and Druggist*, September 6, 1890.

In carrying out a series of investigations as to the changes which take place in many waters when kept under favorable conditions, the want of a simple and rapid quantitative test for nitrites made itself felt. None of the ordinary processes answered the required purpose, and, therefore, the author was induced to attempt to make the exceedingly delicate potassium iodide and starch test an available colorimetric one. The experiments made with this object proved:

1. That with the same proportions of acid, starch, and potassium iodide, the rapidity with which the blue tint develops and the depth of the tint vary with the degree of oxygenation of the water.

2. The depth of color increases with the time of exposure, since the liberated NO acts continuously as a carrier of oxygen.

3. Temperature has a very appreciable effect.

4. Other things being equal, the stronger the acid and the larger the proportion of potassium iodide added, the more rapidly is iodine liberated.

5. The quantity and quality of the starch solution also affect the result.

6. When all the above factors are constant, then the rapidity with which the blue tint develops varies with the amount of nitrite present. To obtain satisfactory results it is, therefore, necessary to work with waters at about the same temperature, which have been well shaken with air, and have then been treated with exactly the same quantity of each reagent.

The reagents required are:

1. *Solution of Potassium Iodide and Starch.*

Starch (in powder)	2 grams
Caustic potash	1 "
Potassium iodide	2 "
Water	200 c.c.

Dissolve the starch in about 10 c.c. of water, to which the caustic potash has been added. Heating is unnecessary. The solution keeps well.

2. *Dilute Sulphuric Acid.*

	Parts.
Pure acid	1
Water	3

Mix.

3. *Solution of Sodium Nitrite.*

Pure sodium nitrite	.493 gram.
Water	1 litre

1 c.c. = 1 mlgr. nitrogen.

Apparatus required: a few small pipettes and 50 c.c. Nessler cylinders.

In making the analysis, shake the sample of water vigorously in a partially-filled bottle to saturate with air, pour 50 c.c. into the cylinder and add 1 c.c. of the starch and iodide solution, and afterwards 1 c.c. of the dilute acid. Stir gently. Assuming the temperature to be about 60° F., if a blue tint develops instantly on addition of the acid, the water contains more than 1 part per million of nitrous nitrogen. If the blue tint shows only after a few seconds, it contains about .1 per million. If it requires more than about 10 seconds to develop, it contains less than that amount.

In the first case the water is too strong for estimation, and it must be diluted with nitrite-free water in such proportion until an experiment shows that the color appears only after standing a few seconds.

With a little experience the approximate amount of nitrite present can be ascertained with considerable precision by these simple preliminary experiments.

Now prepare a standard nitrite solution by

diluting 1 c.c. of the above solution of sodium nitrite to 200 c.c. Each c.c. of this standard, diluted in the Nessler cylinder to 50 c.c., corresponds to .01 nitrogen per litre.

Measure into two or more Nessler glasses varying quantities of this standard solution, and fill up with the aërated water. Now take 50 c.c. of the water to be examined, or of the previously diluted water, if such dilution were found necessary, and add to each, successively and rapidly, 1 c.c. of the starch solution, and 1 c.c. of the acid. If none of the prepared solutions correspond in strength with the water fresh trials must be made.

The following are the notes on an estimation:

50 c.c. + reagents. Blue in about 10 seconds.

Compared with—

.10 per litre (10 c.c. standard dil. to 50 c.c.). This was a little too strong.

Compared with—

.05	Too weak.
.07	Too weak.
.09	Too strong.

Tried again with—

.08	Little too strong.

Estimated therefore at .075 N per litre.

Real strength was .070 N per litre.

Numerous determinations with all kinds of potable waters prove that the process is reliable. A determination only takes about five minutes as a rule. The reagents are easily made and preserved, and the conditions to be observed are easily attained. For the above reasons the author commends it to the notice of such analysts as desire to record the amount of nitrites in water examined. In the course of the paper Dr. Thresh mentioned that he had come across samples of water in which the nitrite fluctuated, and this it will be seen was a point which was considered in the course of the discussion.

Diet and Digestion.

At the last meeting of the Homœopathic Medical Society of Pennsylvania, Dr. M. S. Williamson, of Philadelphia, read a sensible paper on the Hygiene of the Alimentary Canal, in which he said that, in health, an excellent way to prepare the stomach for the morning meal is to take a drink of cold water, while for those who suffer with catarrhal dyspepsia hot water may be used to wash away the accumulated mucus to enable the gastric juice to act upon the food. In cases where there is loss of power of the stomach, and especially where there is irritability, hot water after eating is very soothing and beneficial.

It is not possible to lay down general rules for diet; each patient should be examined to ascertain what kind of food should be eaten. The mother's diet has a direct influence upon the unborn child, and may control the development of the bones and size of the child. Many mothers think that their milk is the best kind of food, but this is an error. In England it has been found that about ten per cent. of infants do not thrive on their mother's milk.

In the absence of mothers' milk, or in a case where this does not agree with the child, cow's milk must be given; or, if that cannot be digested, or if a good article cannot be procured, condensed milk; and there are many preparations of baby food that may be tried. In some cases where the mother has not enough milk to satisfy the child, it is right to urge the mother to retain her milk and to use the bottle for the additional meal, the notion that mixing milk is injurious having been found to be erroneous.

As a child grows it is necessary to add to the diet, and after a healthy child is nine months old it will require the milk to be given undiluted. When the child is a year old, bread or crackers may be added to the milk, but Dr. Williamson has found the best preparation to be oatmeal with milk. Boiled eggs and soups may be given at dinner, but light suppers are very important for the early years, and many children who have night coughs and bad dreams can have these troubles done away with by observing this rule. Not only young children but those of larger growth will feel much better in the morning, and eat their breakfast with more relish, if they take only food that is easily digested at supper time, and make it a rule never to eat anything after supper.

It is important not to sow the seeds of future trouble by allowing the use of condiments or of highly-seasoned food, for the time will come when there will be punishment for transgression. With advancing years, when the natural tonics of fresh air and out-door exercise cannot be taken, the use of malt in some form may stimulate the appetite. Meat is what is needed, and this

stewed and thickened with potatoes, barley, rice or split peas, forms a good food for the mid-day meal. Extract of meat and milk punch, in very old persons, may be given with advantage when they are not able to eat ordinary table food.

Thiol in Skin Diseases.

Prof. E. Schwimmer, Buda-Pesth, is cited in the *British Journal of Dermatology*, September, 1890, as recommending thiol as useful in erythema, dermatitis herpetiformis, herpes zoster, acne rosacea and acne vulgaris faciei, in papular and weeping eczema, as also in the treatment of burns, etc. It is generally applied in the strength of a one-in-three aqueous solution. Prof. Schwimmer was especially struck by the exceedingly satisfactory results he obtained with it in the treatment of herpes zoster and dermatitis herpetiformis. Of the latter disease a case had been ineffectually treated for three months with other remedies, but healed promptly in the course of a week when thiol was applied. The patient was painted regularly twice daily with the solution for two or three days, and the skin then carefully washed with pure water. It was found that the vesicles and bullæ had disappeared even in this short space of time, being replaced by scurfs of thiol, and the skin below showed nothing but a moderate pigmentation. A result like this appears really marvellous in such a refractory disease as dermatitis herpetiformis. In erythema exudativum multiforme also good results were obtained with the solution, but the thiolum siccum pulveratum seemed preferable, the eruption becoming much paler in three to six days, and soon healing completely. The liquid form again proved more adapted to papular eczema, being especially cleanly in application. On the whole thiol does not soil much, though the ointment form (made of 2 parts of thiol and 20 parts of lard) is not quite so agreeable as the solution. Its great advantage over ichthyol is, however, the absence of all unpleasant odor.

A Steam Milk Sterilizer.

According to the *Deutsche Medizinal-Zeitung*, Sept. 25, 1890, Dr. Schmidt, of Mülheim, in the *Archiv. für animal. Nahrungsmittelkunde*, No. 7, 1890, describes an apparatus for the sterilization of milk, which is thought to be simpler in construction and more useful than any hitherto devised. The essential parts are a shallow, concave vessel or boiler, to contain water, with a perforated cover surrounded by a rim of wood, to receive the bottles of milk, and a lacquered paper bell-shaped cover with an opening at the top for the escape of steam. The bottles are furnished with adjustable ground-glass stoppers, with a vertical groove, affording communication between the contents of the bottle and the outside air, thus preventing bursting. The water of condensation which collects makes the closure hermetic. The advantages of the apparatus are that the sterilization of the milk in a current of steam is more thorough and more speedily accomplished than in the water bath, without the danger of spoiling or scorching. The milk retains a degree of freshness of taste not possible when stoppers of rubber and like material are used. [This apparatus is similar in principle to several now on the market in America.—Ed. Reporter.]

Styron in Chronic Purulent Otitis Media.

Dr. Cheltsoff, *Bolnitchnaya Gazeta Botkina*, May 9, 1890, ascribes great value to styron in the treatment of chronic middle-ear disease, which does not yield to the most energetic treatment with other remedies. He made special observations in eight cases and obtained brilliant results.

In one case of otitis media of three years standing, the ear was syringed with a solution as follows:

Styron	℈i
Alcohol	f℥i

One part of the above to twenty parts of water. The purulent discharge and inflammatory condition of the ear disappeared. The patient was cured and discharged from the hospital within twelve days from the beginning of the above treatment.

He had another patient twenty-one years old, with purulent otitis media since childhood; an acute exacerbation with extreme shooting pain in the ear made the patient call for treatment. Syringing with water for several days did absolutely no good. But when twenty parts of the solution of styron to two hundred parts of water were used to syringe the ear with three times a day, the pain,

swelling and tinnitus aurium were relieved within two days. The patient asked for his discharge from the hospital after the fifth day. On the last examination the swelling in the auditory canal was absent, and the middle ear was free from all inflammatory product and had a normal appearance. During the treatment with styron the author tried in the above cases 1-8,000 of bichloride of mercury solution as a substitute; then the purulent discharge appeared the next day in large amount, and disappeared the following day, after the use of styron was resumed.

There are two forms of styron, the crystal and the liquid. Both have the same virtues, the liquid being the least expensive.

Dr. Cheltsoff used an alcoholic solution, and, in order to ascertain that it was not the alcohol that was so beneficial in the purulent cases, he syringed the ear with alcohol during treatment, which was followed by increased discharge from the ear. The styron used after it, however, made the pus disappear permanently. The author states that when there was much pain it was immediately relieved by styron, and that the latter was an excellent analgesic in all his cases. At present styron is a favorite remedy in the hospital for all obstinate purulent conditions.

Sulphaminol as an Antiseptic.

According to the *Journal de Médecine*, September 7, 1890, sulphaminol, or thio-oxydiphenylamine, is prepared by exposing the salts of oxydiphenylamine, dissolved in water, to the influence of sulphur. The product thus obtained is a light yellow powder, odorless and tasteless, which dissolves easily in alkaline solutions, and more easily in solutions of alkaline carbonates. Alcohol and acetic acid also dissolve it. Solutions of it have a light yellow color. Sulphaminol becomes brown and deep colored at about 311° Fahr.

In contact with the juices of the body sulphaminol separates into its two components, sulphur and phenol. Each of these two bodies having great antiseptic power, it follows that sulphaminol is used in medicine principally as a substitute for iodoform, without possessing the disadvantages of the latter. In the urine it appears as oxydiphenylamine. R. Kobert, of Dorpat, has subjected sulphaminol to experiment, and has proved its perfect harmlessness. Dogs tolerate as much as nine decigrams (fourteen grains) of the drug administered subcutaneously, per kilogramme of body weight. No symptoms of poisoning or of suppuration were observed when this dose was given, and even the appetite of the animals was unaffected. Sulphaminol has no toxic effects on man.

Moritz Schmidt, of Frankfort on the Main, reports successful results with it in laryngological practice. He has employed the preparation especially in suppurations of the maxillary sinus. The strong odor of these suppurations, he says, is dissipated easily only by iodoform and sulphaminol; and as the latter is entirely odorless, it is altogether preferable to the former.

New York Pasteur Institute.

Dr. Paul Gibier, in a circular which seems to have been sent out to the newspapers as well as to medical journals, gives the following as the results of the preventive inoculations against hydrophobia performed at the New York Pasteur Institute since its opening, February 18, 1890.

To October 15, 610 persons, having been bitten by dogs or cats, came to be treated.

In regard to 480 of these persons it was demonstrated that the animals which attacked them were not mad. Consequently the patients were sent back after having had their wounds attended, during the proper length of time, when it was necessary.

In 130 cases the anti-hydrophobic treatment was applied, it having been assumed after veterinary examination or inoculation in the laboratory that the animals which inflicted bites were rabid.

The persons treated were:

64	from New York.	1	from Maryland.
12	" New Jersey.	1	" Maine.
12	" Massachusetts.	1	" Kentucky.
8	" Connecticut.	1	" Ohio.
9	" Illinois.	1	" Arizona.
3	" Missouri.	1	" Iowa.
3	" North Carolina.	1	" Nebraska.
3	" Pennsylvania.	1	" Arkansas.
2	" New Hampshire.	1	" Louisiana.
2	" Georgia.	1	" Ontario, Can.
2	" Texas.		

[This is not exactly the kind of information we desire for the readers of the REPORTER; but as the circular was obviously prepared to impress the laity with the skill of Gibier and the beneficence of his New York Pasteur Institute, it could hardly be expected to have great scientific value.—ED. REPORTER.]

The Grippe as a Cause of Abortion and Miscarriage.

In the Moscow *Meditzinskoïe Obozrenië*, No. 2, 1890, p. 149, Professor Ivan M. Lvoff, the distinguished obstetrician and gynecologist of Kazan, published a valuable paper on the subject, embodying a set of his own observations which are fully in accord with those recorded by Drs. W. H. Banks, of Mifflintown, and Clarence King, of Machias, in the REPORTER, 1890, April 26, p. 489, and June 21, p. 720. During the last pandemic the author happened to come across ten cases of influenza in pregnant women, all of them being multiparæ; of the number, two were in the first half of pregnancy, and both aborted. One of them was seized with grippe while in the third month of pregnancy, abortion occurring on the seventh day of the disease. The other, a generally healthy woman of thirty-three, ceased to menstruate on October 7, and fell ill with severe influenza on November 20. On November 28 (second day of convalescence), there appeared an incessant sanguinolent vaginal discharge; on December 11, an eight or nine weeks ovum was expelled. The remaining eight women were in the second half of pregnancy. In two of the cases, referring to patients in the seventh and eighth month of pregnancy, miscarriage followed—in one on the fourth day of the attack; in the other on the fifth. The infants were born alive, but very weak; and they survived only a short while. Macroscopically their placentæ appeared to be normal. In all the four cases of a premature termination of pregnancy, the complicating disease was of a very severe type, being accompanied with a high fever, reaching its maximum on the third, fourth or fifth day of the attack. In the other six cases the affection was relatively mild, the temperature attaining its highest stand in the course of the first twenty-four hours of the disease. In one of the abortion cases (that occurring during convalescence) the ovum was subjected to a careful macroscopical and microscopical examination which revealed hemorrhagic decidual endometritis, and an advanced fatty degeneration of the fetal membranes, the epithelium of the villi being especially affected. On the whole, Professor Lvoff comes to the conclusion that severe febrile grippe shows the same unfavorable influence on the course of pregnancy as that produced by typhoid fever.

The Preservation of Milk.

After considering various popular means for the preservation of milk, Dr. Lazarus, in an article in the *Zeitschrift für Hygiene*, viii, 2, 1890, of which an abstract is published in the *Deutsche Medizinal-Zeitung*, Sept. 25, 1890, says that all the ordinary preservatives are to be regarded with distrust. In domestic use only salicylic acid is to be commended, and this only when better means are wanting. For the ready recognition of substances added to milk to preserve it: (a) a specimen is heated for an hour or two; a brownish-red coloration indicates the presence of an alkali, such as soda, sodium bicarbonate, borax or lime; (b) a violet coloration upon the addition of a few drops of a dilute solution of iron chloride is indicative of the presence of salicylic acid.

Dr. Laville's Liquor and Pills.

The investigations of the Berlin police authorities show that Dr. Laville's gout liquor, as made by Bernard, is composed of Spanish wine colored with tincture of cochineal, and containing colchicine and quinine. The gout pills contained silicate and carbonate of sodium, extract of alkekengi and a vegetable powder.—*Druggists' Circular*, October, 1890.

Pasteur Institute.

The *Bulletin Médical*, October 12, 1890, reports that in September 158 persons had been treated at the Pasteur Institute in Paris; of whom 49 had been bitten by dogs the rabid condition of which was proved "experimentally," 93 were bitten by animals recognized as rabid by a veterinarian, 16 by animals suspected of being rabid. The animals that did the biting were, dogs 141 times, cats 17 times.

Aletris as a Cathartic.

Aletris farinosa belongs to the family of the Hæmodoraceæ conostyleæ. Its rhizome is administered in the form of a powder, in doses of nine grains, as a simple bitter tonic. In larger doses it seems to possess cathartic, emetic, and even narcotic properties. Good results have been obtained in colic, dropsy, and chronic rheumatism by its administration.—*Journal de Médicine*, September 7, 1890.

Johns Hopkins Hospital and Women Students.

It is reported from Baltimore, October 28, that Mrs. Davis, Miss Mary Garrett, and their associates of the Committee of Ladies, who resolved to raise $100,000, and give it to the Johns Hopkins University for the purpose of founding a medical college into which women would be admitted, have accomplished their resolve. Mrs. Davis has sent the following letter to the Trustees:

"The committees formed for the purpose of raising a fund to procure the most advanced medical education for women can now place at your disposal the sum of $100,000 for the use of your medical school if you will, by resolution, agree that women, whose previous training has been equivalent to your preliminary medical course, shall be admitted to the school, when it shall open, upon the same terms which may be prescribed for men.

"There is little doubt that a sufficient number of women ought to be educated and trained in such manner as to be fully able to care for sick women who may wish or ought to be treated by women. We have devoted ourselves to the furtherance of this object. We have reason to hope that a university which proposes to found a medical school intended to teach advanced methods in the treatment of those diseases which afflict mankind will not refuse to woman the opportunity of learning such methods. There is now a general interest in our movement. In order that this interest may be sustained, we ask you to consider our offer at the earliest possible moment."

The American Academy of Medicine.

The American Academy of Medicine will hold its next annual meeting at Philadelphia, December 3 and 4.

NEWS.

—Dr. Charles Meigs Wilson has resigned as physician to the Lying-in Charity in Philadelphia.

—Jane Martin, who died in the county hospital in Lancester, Pa., on Saturday night, is said to have been 102 years of age.

—Dr. Charles B. Penrose was elected, on October 28, to fill the vacancy in the surgical staff of the German Hospital in Philadelphia, caused by the resignation of Dr. Ferdinand H. Gross.

—A case of leprosy has been discovered at Chester, Pa., by Dr. J. Frank Evans, the diagnosis being confirmed by Drs. Daland, Pepper and Duhring, of Philadelphia. The patient has been isolated.

—On October 28, Dr. John B. Deaver at St. Agnes's Hospital, opened the neck of a woman suffering with cancer of the œsophagus, with a view to its removal, if possible. As infiltration prevented this, he did a gastrotomy.

—It was reported on October 29 that a man and his wife and four children, at Middleton, Wisconsin, had been afflicted with diphtheria, said to have been communicated by a stray cat. Three of the children had died of the disease.

—It is reported from Berlin, October 31, that two cases of slight consumption in the hospital "La Charité" are declared to have been cured already by Koch's method. The patients are kept in the hospital still to prevent their making disclosures.

—Dr. J. T. Rothrock has recently received notice from the Commissioners of the Paris Universal Exposition, notifying him that he had been awarded a silver medal for his photographs of American trees, as exhibited by the American Forestry Division in the Department of Agriculture.

—Sister Rose Gertrude, the young English woman who created a great sensation by attempting to spend her life among the lepers of Molokai, one of the Sandwich Islands, is now a governess in the family of the Superintendent of the Inter-Island Steam Navigation Company at Honolulu. There is said to have been no truth in the statement that she was engaged to Dr. Lutz, about whom and Sister Rose there was so much talk.

MARRIED.

Vissel — Weidemeyer. — On October 2, 1890, at the residence of Dr. S. S. Brumbaugh, at Pipersville, Pa., by Rev. T. C. Strock, Dr. Julius T. Vissel, of Baker Summit, Blair Co., to Miss Mary Weidemeyer, of Pipersville, Pa.

Nash—Duckworth.—At Erwinna, Pa., on on October 8, 1890, by Rev. T. C. Strock, Dr. A. B. Nash to Mrs. Eliza Duckworth, both of Frenchtown, N. J.

MEDICAL AND SURGICAL REPORTER

No. 1759. PHILADELPHIA, NOVEMBER 15, 1890. Vol. LXIII.—No. 20.

Clinical Lecture.

STOMATITIS.—DIARRHŒA IN INFANTS.[1]

BY H. A. HARE, M. D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN, UNIVERSITY OF PENNSYLVANIA, ETC., ETC.

Stomatitis.

Gentlemen: The first case I show you today illustrates a disease which is frequently seen in children, but generally in those not so far advanced in age as is this boy. It is a case of ulcerative stomatitis, so called. Stomatitis is a very important disease, affecting, as it does, at one period of life, almost every child, producing at times very serious systemic disturbances, and occasioning considerable anxiety on the part of the parents. It may also at times produce reflex nervous trouble, such as a slight spasm. This affection has been divided into different classes by various authors, all of whom appear to confound more or less the various forms.

Catarrhal Stomatitis.

According to the best authorities, the simplest form of stomatitis is the catarrhal form. This amounts to nothing more than a simple hyperemia of the entire mucous membrane of the mouth, which may extend to that of the pharynx, and perhaps down the œsophagus, or at times even through the entire alimentary canal. It corresponds to an acute cold in the head, so far as the pathological changes in the mucous membrane are concerned. Under these circumstances we are generally called to see the child because it has stopped nursing, or, if it be older, because it complains of a sensation of heat in the mouth, attended with a great deal of slobbering, and associated with crying and a constant moving of the hand to the mouth. Occasionally there is a slight febrile movement. Upon placing the finger in the mouth it is found to be hot to the touch and inflamed. This is probably due to the fact that there is an increased hyperemia, and consequently an increased local temperature. This is the simplest and mildest form of the disease. A little care devoted to the cleansing of the nipple, or regulating the diet, together with the use of some febrifuge mixture, such as the citrate of potassium and water, will relieve the child in a few hours, unless the attack be so severe as to bring on the aphthous form, or the mild ulcerative form.

Aphthous Stomatitis.

Aphthous stomatitis is really in one sense an ulcerative stomatitis, and yet it is not called so in the text-books. It is a stomatitis in which the catarrhal process has been so severe, particularly about the mucous follicles, that it has resulted in the death in small spots of the epithelium of the tongue and buccal mucous membrane. Small, superficial ulcerations are formed, without any induration around their bases, and are not excavated—a form, practically, of a very mild ulcerative stomatitis. Aphthous stomatitis has been confounded by many writers with thrush. When a child comes to you with white, raised spots upon the tongue, that is thrush; if, instead, there are simple ulcerations upon the tongue, that is aphtha. In aphthous stomatitis, or "baby's sore mouth," as it is frequently called, the child loses its appetite, has a high fever, sooner or later develops diarrhœa or obstinate constipation, and may present severe nervous symptoms, twitchings of the muscles, and turning in of the thumbs. This condition requires careful treatment. It should be

[1] Delivered at the University Hospital.

watched closely. A mixture may be prescribed containing:

R Potass. chlorat. . . . . ℥ ss–i
Tinct. myrrhæ . . . . . gtt. v–x
Elixir. calisayæ . . . . . f ℥ iii

M. S. One teaspoonful every three or four hours.

As a rule children do not object to this mixture, since it is agreeable to the taste. Why do I give this? Because the chlorate of potassium is eliminated chiefly by the salivary glands, thereby bathing the mucous membranes with medicated saliva, and it is practically impossible to make a local application to the sore spots in young children. As a rule, marked relief speedily follows the use of such a prescription. One contra-indication only exists, and that is any acute renal inflammation, which, however, is a rare condition in childhood, unless it follows an acute disease. In such cases we must resort to other treatment, or use the chlorate in very small doses.

Ulcerative Stomatitis.

We now come to what is known as the true ulcerative stomatitis; and this is a disease which in severity greatly surpasses aphthous stomatitis. It is accompanied by the formation of pocketed ulcerations over the mucous membrane of the mouth, depressed, serpiginous, with crater-like edges and yellow bases, surrounded by induration, and often confluent, spreading over the lips and even down upon the chin in bad cases. There is a constant dribbling of saliva in all forms, wetting the skin of the chest. This is frequently followed by an eruption of eczema over the chest and abdomen. The nasal mucous membrane becomes involved in the process, and the nostrils are stopped up, resulting in breathing through the mouth. This causes the tongue to become as dry and scaly as it does in typhoid fever. Here the local treatment is identical with that in the other varieties. If the child is old enough, the ulcerations should be touched up with the stick of silver nitrate or a strong solution of the same salt. The stronger solutions hurt less than do the weak, and a solution containing from twenty to thirty grains to the ounce is the best for this purpose. It should be applied with a camel's hair brush, care being taken that the brush is not dripping wet. All that is necessary is to moisten the surface of the ulcers. At times a little cocaine may be used, but generally the burning of the cocaine is worse than that of the silver, and we thus use two medications instead of one. Fever mixtures of various kinds are wanted. Particular attention should be paid to the bowels and kidneys. The urine is always found to be concentrated, and it is not only well to use the chlorate of potassium solution already named, but it is also wise to order Vichy or some other mineral water, which will act upon the liver and at the same time wash out of the kidneys the potassium products and lower the specific gravity of the urine.

Noma—Cancrum Oris.

We now advance to another form of ulceration of the mouth, known as cancrum oris or noma, which is practically not a stomatitis. We might say that this is an invariably fatal condition. Perforating ulcers appear upon the mucous membrane, going on to gangrene, causing sloughing away of the cheeks, so that the inferior maxilla is exposed. It is accompanied by great loss of flesh, wasting, high fever, cachexia and rapid death. It is a very rare condition in this country, and is probably due to some micro-organism not yet identified. We may use a supporting treatment and apply silver nitrate and other caustics locally; but death usually follows.

This boy has the ordinary mild stomatitis, a little too severe for aphtha, and too mild for the ulcerative form. In some cases of the aphthous and milder ulcerative varieties, and always in the severe forms, the systemic depression that is produced is simply appalling. Within twenty-four hours the child will sink into a complete collapse. Many English writers consequently believe that alcohol should always be used in these cases; and this is a matter it will be well to bear in mind.

You will find among nurses, and particularly monthly nurses, that they always assert that this disease is bound to "go through" the child. Practically this is so. I hardly ever see a case of stomatitis which is not followed by a catarrh of the bowels and stomach, and the patient is usually ill at least ten days. In such cases, as soon as the diarrhœa becomes excessive, some astringent mixture may be given. But do not check such a diarrhœa too rapidly, or serious consequences may follow, and even convulsions in young infants. Paregoric or aromatic sulphuric acid are best for this purpose, their

use being stopped as soon as the stools are reduced to two or three in the day.

Thrush.

I have passed over the condition known as thrush, which is often incorrectly called "baby's sore mouth." Thrush is an entirely different disease, due to the presence in the mouth of saccharomyces albicans. It is due to a fungus and differs from aphthous stomatitis in the fact that it grows from the surface like tufts of mould. Its size varies from that of a pin's head to that of a small finger nail. Thrush is found upon the tip and edges of the tongue as a rule. Practically it presents the same symptoms as does stomatitis: a hot mouth, dribbling, inability to take food on account of the severe pain, although the child is intensely hungry. This is one reason why collapse is so frequent in stomatitis. If the child is old enough to take a mouth-wash, give it a mild carbolized solution, say a one per cent. solution of the crystallized carbolic acid, washing the mouth every two or three hours. The chlorate of potassium is not as useful here as in stomatitis. The carbolic acid is more of an antiseptic and hence is more serviceable. Thrush rarely extends down through the alimentary canal. Some clinical authorities say they have found the fungus in the stomach and even in the small intestines; but this is very rare.

The boy I showed you with the ulcerations around the edge of each tooth has a condition somewhat different from the ordinary stomatitis, in the fact that the ulceration has extended to the gums. It is comparatively rare for this to occur. I do not know what he received from the dispensary. He came in on Saturday for the first time, and is better since using his mouth-wash. An excellent remedy to use as a wash is the sulpho-carbolate of sodium, five to ten grains to the ounce. This is perfectly innocuous, thus having an advantage over carbolic acid.

One word as to the diet in these cases. Parents always want to know about the diet. This is a very important matter. We cannot cure our patients unless it is attended to. Do not give anything which contains sugar. Cut down the sweetening of the bottle, or use instead a small amount of saccharine. For an older child, order broths, thin, non-greasy soups, and largely a milk diet, washing out the mouth with an antiseptic wash after each meal.

Serous Diarrhœa.

The baby I now show you is three months old, and has had a watery diarrhœa for the past two weeks attended with but little pain, the child crying only occasionally. This is generally the case with a watery diarrhœa. In mucous diarrhœa we nearly always have tenesmus and pain. The child has been fed upon condensed milk, one part to sixteen of water ever since its birth until last Saturday, when it was ordered cow's milk. Undoubtedly this attack the child is suffering from is due to the use of improper food. It was getting condensed milk instead of human or cow's milk. This is one class of cases in which we are apt to meet with thrush.

Mucous Diarrhœa.

The first case you see of mucous diarrhœa in children will puzzle you. It must be controlled; but how can this be done. The first thing is to remove the cause, and then to cure the condition produced by the cause. The mother now tells me that the baby has some green in its stools. This does not generally occur in serous diarrhœa. The presence of green usually indicates a mucous and not a serous diarrhœa. These green spinach stools of young children are always due to fermentation, and we rarely have fermentation when we have a serous diarrhœa. A small indigestible particle of food lying in the intestinal canal produces an irritation of the mucous membrane and consequent depression of vitality. A gradually spreading catarrh is produced with a mucous secretion, thick and tenacious, which coats the particles of food. These are then rolled along in the canal until finally the child has in its alimentary canal a decomposing piece of milk or meat covered with mucus which cannot be digested. Active inflammation is set up, and fermentation follows, accompanied with the growth of a fungus. These passages are nearly always acid, instead of being alkaline. Should you give the child an astringent mixture now, you will do it harm. Nature is trying to relieve the child by washing the irritating substance out. Something must be given to clear out the alimentary canal. The best thing is a dose of castor oil, a soothing purge taking five hours to act and facilitating the discharge of the immense amount of mucus thrown out in the alimentary canal. Then administer the astringent mixture. If the child has a puffy

distended belly, indicating a chronic condition, follow the purge with tonics and alkalies. A mixture of bicarbonate of sodium and gentian is the best remedy for such cases. This primary purgative treatment will occasionally be objected to by the parents, and then it must be explained. If we are compelled to give an astringent, one of the best for a young baby is chalk mixture. This, however, is hard to swallow, and it may be better to give one half or one drop of aromatic sulphuric acid to a child of six months or one year, combined with syrup of ginger, elixir curaçoa, or other adjuvant, to render it palatable. A mixture of bicarbonate of soda, forty-eight grains to a drachm, in six ounces of compound infusion of gentian is an excellent preparation, given in dessert-spoonful doses. If the compound tincture of gentian is used, the dose must be less. The only objection to this is its bitter taste; but this may be overcome by administering a peppermint cream drop before and after giving the dose. The condition of acidity of the alimentary canal is overcome by the alkali, while the compound tincture of gentian is a tonic, overcoming the depression which results from the primary irritation and inflammation.

COMMUNICATIONS.

GUNSHOT WOUND OF THE ABDOMEN.

BY ARTHUR E. SPOHN, M. D.,

CORPUS CHRISTI, TEXAS.

In time of peace gunshot wounds of the abdomen are comparatively rare, especially those inflicted by large missles, which are seldom seen except on the frontier, where the old-fashioned Colt six-shooter is to be found. It was with one of these 45-caliber old timers that the following wound was made.

At 10 o'clock on the morning of June 25, 1889, Adrian Bocanegra, a healthy young man twenty years old, was playing with a pistol, which was accidentally discharged while the barrel rested against his abdomen. The nature of such an injury may easily be imagined; the ball entered about two inches to the left of and a little above the navel, passed through the abdominal cavity and lodged under the skin about one inch to the left of the spine near the tenth dorsal vertebra. The man fell backwards and then got up and walked across the street. In about half an hour he commenced vomiting blood. There was no hemorrhage from the wound, externally. I did not see him until about 12 o'clock. He was then lying on his back, pallid, with very feeble and frequent pulse, evidently suffering from profuse internal hemorrhage. Air passed occasionally from the abdominal wound, and there was a crackling emphysematous sound, showing that gas had escaped into the loose tissues. There was neither ingested matter nor blood escaping from the wound. I gave half a grain of morphia hypodermically, and made arrangements to open the abdominal cavity immediately.

Dr. Jones, of this city, and Dr. Cock, of San Marcus, assisted in the operation. I sterilized about 10 gallons of water by boiling, and to a part of this I added ten per cent. of carbolic acid, for the hands and instruments; to the remainder five per cent. of boric acid, for flooding the abdominal cavity. I washed the surface of the abdomen with a ten per cent. solution of carbolic acid, shaved off all its hair, and dusted it with powdered boric acid. It was two o'clock when Dr. Jones commenced administering the chloroform. I made an incision through the linea alba, from the navel to about two inches above the pubes, arresting all hemorrhage with hot water, and ligatures where necessary. The peritoneal cavity contained clots of blood, and ingested matter; gas also escaped from the intestines. The hemorrhage, which had been very profuse, had evidently ceased, but recommenced when I began to examine the intestines, one point bleeding very freely—where the ball had passed through the transverse mesocolon very near the bowel, and cut off quite a large vessel, which I ligated. While examining the intestines I kept the cavity well flooded with the boric acid solution, at a temperature of from 100° to 112°. I found four wounds in the intestines, one in the transverse portion of the duodenum, and three in the small intestines, eight openings in all; besides these the mesentery was cut in several places, and contained between the folds several large clots of blood, which I pressed out, ligating the bleeding points when necessary. After persistently flooding the cavity and searching for bleeding points, the water was still very bloody, so much so that I feared there

was some bleeding point that I had not detected. I now enlarged the opening by carrying the incision about two inches above the navel, and again carefully examined for hemorrhage. Upon passing my hand into the cavity of the pelvis, I found it filled with clotted blood, which I removed by flooding the cavity and gently paddling with my hand.

I next turned my attention to closing the openings in the intestines, using ordinary sewing needles, and a fine ligature known as "West India Islands grass line," which I described in the MEDICAL AND SURGICAL REPORTER, August 20, 1887, page 270—a line made, I believe, from raw silk—composed of three separate threads twisted together, which I separated, using one of the fine threads for ligatures, as they are very strong and durable. The first wound closed was the one from which there was so much hemorrhage, in the transverse mesocolon. The ball had passed very near the bowel, which was contused for some distance, and I believe would eventually have given way. I treated the wounded part as if an opening existed, closed the opening in the mesentery—inserting reinforced stitches near the intestine, and also stitched the bowel on each side, keeping well outside of the contused portion, which was pressed into the canal. I used the Lembert suture, which I think gives better satisfaction than any other in such cases. The openings in the intestines were large and ragged, one being almost completely severed. I did not pare the edges of the wound, for I think it a mistake to do this, because it takes time, may produce hemorrhage, and removes the ragged surface, which naturally falls together, interlacing, as it were, and assists in keeping the opening well closed. I inserted the stitches lengthwise of the bowel, a procedure which may shorten the intestine, but does not decrease its caliber, which I consider an important point in closing intestinal wounds. The intestines, being held by the mesenteries, like an open fan, have a tendency to drop together, and if shortened by resection or the closure of a wound, there is little or no strain on the stitches, while the caliber of the bowel is not diminished. On the other hand, if the stitches are inserted crosswise of the intestine, not only will the caliber be diminished, but there will also be a strain on the part. Shortening the intestine by doubling it over has a tendency to strengthen it. I placed the stitches about one-fifth of an inch apart, sometimes closer, inserting extra stitches where the parts did not appear to be effectively closed. All the stitches of a given opening were inserted before any were tied. After closing all the wounds—that is, nine of the intestines, and three in mesenteries—I flooded the cavity very freely by pouring the water in from a pitcher, and then raising the side of the table to let it run out, continuing until the water came out clear, at the same time examining carefully for clots or ingested matter. I then wiped the cavity out very carefully with soft sponges, passing them deep into the pelvis, until all fluids had been removed, then closed the abdominal incision, using the grass line, full strength, placed one inch apart, including the peritoneum; between these and to close any gaping points, I inserted specially prepared horsehair sutures, which I find excellent for fine work. The horsehair is prepared by being washed with soap and water, soaked for forty-eight hours in a ten per cent. solution of carbolic acid, and then placed in a glass tube filled with a fifty per cent. solution of boro-glyceride, and securely corked. The hair thus prepared is very elastic and quite strong.

I did not insert a drainage-tube, and do not think they are necessary, when the abdominal toilet is nicely perfected, and there is no hemorrhage. I covered the abdominal incision with boric acid, then a narrow strip of borated cotton, passing a few strips of rubber adhesive plaster across, to give additional support, dusted boric acid very freely over the whole surface, and covered all with a pad of borated cotton, which, with a light bandage, completed the dressing.

The opening where the ball entered was very much torn and powder burnt, and I simply covered it with boric acid and borated cotton. I did not remove the bullet, not wishing to make any more openings into the cavity, but removed it several days after.

It was two and a half hours from the commencement of the operation to the completion of the dressing. My patient rallied well and made a very quick recovery, without any complications. The following is selected from the notes taken daily at the bedside:

Morphia was used to procure rest of the bowel; the urine was drawn with a catheter; mucilaginous drinks and beef peptonoids

were administered, and by the third day a little milk with a little coffee, and the next day some chicken broth. The sixth day an enema of glycerine and milk, of each two ounces, brought about an action of the bowels containing considerable fecal matter.

On July 4 I dressed the abdominal wound for the first time. I found the dressings dry, just a little soiled along the line of the incision. The wound was completely healed. I removed all the stitches and washed the abdomen with a five per cent. solution of carbolic acid, using sterilized water, applied a few strips of adhesive plaster dusted with boric acid, and replaced the pad of borated cotton and the bandage. The patient's pulse was 72, his respiration was 20, his temperature 99½° and he was feeling quite comfortable.

July 9 I removed the bullet from his back, which was not causing any inconvenience, the slight incision soon healing. Of course, while I now considered my patient quite well, I kept him under observation, allowing but little exercise and a very restricted diet. It is now three months since the operation, and he enjoys his usual health and is able to do a hard day's work.

I have given a very full report of the above case because it is one of great importance, not only from its gravity, but because it may assist my professional brethren of the rural districts in coming to a conclusion as to what course to pursue in cases of gunshot wounds of the abdomen and their proper management. That they need not allow the unfortunate sufferer to die, because there is no specialist at hand, I have always believed; and I maintain that one man can do just as much as another, if he only thinks so; that surgery, after all, is only a question of anatomy and good judgment. When I made my first abdominal section I had to ride fifty miles on horseback, give chloroform, and operate alone for obstruction of the bowels—and the operation was successful.

In looking back over the above case, I see no change I would desire to make, the treatment being the same that I follow in all cases of abdominal section; and my success has been all I could have desired. There are a few details I consider of great importance, viz.: a well-ventilated room kept at a temperature of from 98° to 100° F., during all capital operations; plenty of sterilized water, and the utmost cleanliness in operator and assistants. I always take a bath and change my clothing just before all serious operations and require the same, if possible, of all assistants—at least their hands must be thoroughly disinfected, using a strong solution of carbolic acid. In dressing all wounds I use a large quantity of boric acid, enough to absorb any moisture. In abdominal sections I scarcely ever examine the wound before the fifth day, and do not change the dressings until the ninth or tenth day, when I remove the stitches. I adopt the same course in amputations.

I would not rely on the hydrogen-gas test, because a bullet may pass in close proximity to the intestine, cutting partly through it, which will be followed by perforation and certain death. No surgeon would, in my opinion, be justified in treating a penetrating wound of the abdomen, who did not immediately make an exploratory incision, in order to arrest hemorrhage, repair any injury to the intestines and cleanse the cavity. On October 2, 1890, I chanced to be traveling on the cars from Corpus Christi to San Diego, Texas. At one point we stopped to take on wood, and I left the car for a little walk along the track and found a man lying on the ground, supposed to be dying. Upon examination, I found he had been shot—the ball passing through the abdominal cavity, entering about three inches to the left of and a little below the navel, passing out a little to the right of the spine. I had not time to operate where he was, so I put him in the baggage car, and at the next station opened the cavity. There was nothing to indicate that the intestines were injured. It was now eight hours since he was shot, there was no emphysematous sound, no air or blood escaping from the wound; the only thing showing severe injury was his weak and quick pulse and collapsed condition. There was considerable blood in the cavity, the ball having penetrated the descending colon and cut a small artery in the mesentery. The blood in the cavity was evidently from this artery, which I ligated at once. The wound in the intestine was large and very peculiar, the mucous coat being turned out, completely stopping up the openings. I closed the openings—using Lembert's sutures—washed out the cavity, stitched it up and used the ordinary dressing after laparotomy, and left the man with his friends, giving instructions, which I suppose were not followed.

On the fifth day after, he sent to ask me

if he could have something to eat. I was told he felt well, and had little or no fever, and so I allowed him a very little liquid food. I have since heard that he died, and that he had paralysis of the lower extremities. I have no doubt but that the ball injured the cord and probably fractured one of the vertebra. The fact is I had no one to assist me except ordinary passengers, and one of them fainted just as I opened the abdominal cavity; so that I had no time to examine as to the course of the ball. Even under the circumstances, had the ball not injured the cord I am satisfied this man would have recovered. He had no surgical attendance, but lay in a little Mexican hut.

This case simply illustrates the fact that we may often save lives by acting promptly and fearlessly. I frequently see notices in our State papers saying: "Shot through the bowels; died a few hours after;" and I find invariably that no attempt was made to save the unfortunate, or at least to give him a chance for life. I live in a rural district myself, or rather in a little country town, so that I know how one feels to stand by and see the life of a fellow-man slowly ebbing away; and if this report will stimulate my fellow-practitioners of the rural districts to do their duty under all circumstances, I am more than repaid for my trouble in making it.

THE TORSION OF ARTERIES FOR THE ARREST OF HEMORRHAGE.[1]

BY J. B. MURDOCH, M. D.,

PITTSBURGH, PA.

There is no subject of greater interest to the practical surgeon than the arrest of hemorrhage. This remark is equally true whether the hemorrhage comes from a wound accidentally inflicted, or one made intentionally, by the surgeon's knife. Without the means of stopping the flow of blood from bleeding vessels, the surgeon's art would be greatly crippled, and surgical operations, where blood-vessels must be divided, would be impossible.

There is no sight so appalling as a formidable hemorrhage. When a large artery is opened, the blood gushes out in an angry stream, the face becomes pale, the color leaves the lips, the respiration becomes sighing, the heart fails to beat, and death closes the scene. Without any knowledge of the circulation or nature of the blood, or of the means by which its flow from a wound could be arrested, what a terrible and mysterious sight it must have been to the early races of men to see one of their number perish from hemorrhage. What, for instance, must have been the sensation of our first parent Adam, as he looked upon the wounds of his dead son Abel, with the stain of his blood upon the ground. Surgeons from the earliest ages have shared with the people this dread of hemorrhage, and have ever been striving for the best means for its control. Upon no subject has our profession been more conservative than upon this one—the arrest of arterial hemorrhage. Since the time of Celsus, notwithstanding the numerous methods which have been proposed for this purpose, but two, viz.: the actual cautery and the ligature, have received the endorsement of the profession. But, if the profession has been slow to endorse new methods, its confidence, once gained, has been most unwillingly surrendered. From the time of Archigenes, who practiced in Rome shortly after the time of Celsus, up to the time of Richard Wiseman, Sergeant-Surgeon to King Charles II, the red-hot iron was the sole method employed. Thus, this method of checking hemorrhage after amputation, not two centuries ago, was the same as that used for fifteen hundred years previous. The pertinacity with which surgeons adhered to the use of the actual cautery after Paré's great discovery of the ligature well illustrates the fear in which surgeons stood of hemorrhage. They have used, and seen their fathers use, the red-hot iron, and, notwithstanding the pain it causes and the interference with primary union, they were unwilling to discard the agent which long usage had taught them was successful.

In 1564, Ambrose Paré published his new discovery, which, to use his own language, "was taught him by the special favor of the sacred Deity." In this publication, as is well known, Paré demonstrated the value of the ligature as a hemostatic. But, owing to the extreme fear of hemorrhage, and the criminal neglect of surgeons, it was two hundred years before it was adopted by the profession, and then it came into favor through the influence of Sharpe, one of the surgeons of Guy's Hospital,

[1] Read by invitation at the 16th annual meeting of the Mississippi Valley Medical Association, October 10, 1890.

London, who boldly championed the claims of the ligature to popular confidence. Since this time nothing has dislodged the position which the ligature has held as a hemostatic in the opinion of the profession. The efforts made by Sir James Y. Simpson, of Edinburgh, to substitute acupressure, and the still more recent endeavor of Dr. S. P. Spier, of Brooklyn, to substitute constriction for ligation, have most signally failed. The same statement may be made also in regard to torsion as a means of arresting arterial hemorrhage. It has not received the support of the profession to any great extent; but unlike the other rivals of the ligature, it has had champions for hundreds of years, and still holds a place as a valuable means of arresting hemorrhage, This subject has received but little attention by modern surgeons. The twisting of an artery to arrest bleeding is of ancient origin. It is spoken of by Celsus. A fact often observed that an arm or leg may be torn from the body with the loss of only a few drops of blood, no doubt suggested the method. It has been advocated by such surgeons as Amussat, Dieffenbach, Schroeder, and Syme. But the credit of bringing it prominently before the profession and establishing its efficiency is due to Mr. Bryant, the present distinguished surgeon of Guy's Hospital, London. At this hospital the ligature is seldom used, torsion being chiefly relied upon. Mr. Byrant tells us in the last edition of his *Surgery*, that in two hundred consecutive amputations of the thigh, leg, arm and forearm, all of the arteries were twisted, one hundred and ten of them being the femoral artery; and that in no case was there secondary hemorrhage. Mr. Bryant says: "The physiological arguments in favor of torsion are very great, and the practical advantages seem to be no less. After seven years' experience in its practice, applied to vessels of all sizes, the femoral being the largest, I have had no mishap. I have observed that wounds have united more rapidly and kindly, primary union being the rule. There has been less constitutional disturbance after operation, and consequently less liability to traumatic fever, pyæmia, and other complications, such as we are all too familiar with in the practice of surgery. I have had stumps heal in a week and the patient up in two weeks; without one single drawback, rapid and uninterrupted convalescence following the operation."

Having given this experience of Mr. Bryant, I desire now to give my own as observed at the Western Pennsylvania Hospital, at Pittsburgh. At this hospital, torsion is almost exclusively relied upon to check the hemorrhage from wounded arteries or veins, whether the wound be produced by the surgeon's knife or otherwise. My experience with torsion as a hemostatic, dates back to the year 1872, when I became a member of the Hospital Staff. My colleague had, previous to my connection with the Hospital Staff, been twisting arteries as large as the radial and ulnar. The facility with which this was done, and the fact that the wounds healed kindly and without secondary hemorrhage, induced me to follow their example, at first timidly; but with success came confidence. Having been successful in the amputation of a forearm with no untoward result, I ventured next to twist the brachial after the amputation of an arm; soon after this, the axillary and then the popliteal, and finally the femoral. And now, for the past eighteen years, torsion, for the arrest of hemorrhage after all surgical operations, has been the recognized, and almost the only method resorted to at this hospital. It is to be regretted that records have not been kept of the number of large arteries which have been twisted to arrest the hemorrhage.

The following is a table showing the number of arteries divided in cases of amputation, where torsion has been resorted to for the arrest of hemorrhage at the Western Pennsylvania Hospital:

Femoral	116 times.
Popliteal	18 "
Axillary	18 "
Anterior tibial	317 "
Posterior	317 "
Brachial	81 "
Radial	45 "
Ulnar	45 "

There are two methods by which the torsion may be applied:

1. Limited torsion.
2. Free torsion.

In the first method, two pairs of forceps are required. The first pair grasps the vessel at its cut extremity, and pulls it from the sheath. It is then seized by the second pair at a point from one-half an inch to an inch above the cut extremity of the artery; this second pair being held at right angles to the long axis of the vessel. The first pair is then given three or four sharp turns.

By the second method (free torsion), only one pair of forceps is required. It is the one recommended by Mr. Bryant as not being so likely to injure the external coat of the artery. And this is the method which was adopted in the cases which I have given.

A good pair of forceps is required, which will hold the end of the artery firmly, that has no lateral motion, and with serrations blunt enough to obviate any laceration or cutting of the parts seized by the blades. The vessel should then be drawn out, as in the application of the ligature, and three or four sharp rotations of the forceps should be made. In large arteries, such as the femoral, the rotation should be repeated until the sense of resistance has ceased. The ends should not be twisted off. In small arteries, the number of rotations is of no importance, and their ends may be twisted off or not, as may be preferred. In all of the cases mentioned in the above table torsion of the arteries and veins was the method resorted to to control hemorrhage.

In addition to these cases, of which we have a record, the method of torsion has been the one resorted to in all other surgical operations performed during this period, such as amputations of the breast in women, the removal of tumors, the excision of joints, etc. It is within bounds to say that torsion has been resorted to at this hospital in thousands of cases without any mishap. We have had no case of secondary hemorrhage which could fairly be attributed to the method of controlling the hemorrhage.

The advantages of torsion as compared with ligation are:

1. The greater facility with which it can be applied. I am fully aware that this proposition is disputed, but to those who are familiar with both methods, there can be no doubt that torsion is the easier of the two. For the ligation of an artery, an assistant is required to seize the vessel and draw it out while the ligature is applied. For torsion, the surgeon requires no assistant. The vessel must be seized by the forceps in either case. In torsion, it only requires three or four turns of the forceps to complete the process, which can be accomplished in as many seconds. When a ligature is applied, let the operator be ever so skilful, the thread may break or slip off the vessel, but if neither of these accidents occur, the process cannot be accomplished in anything like the same time.

2. Torsion is a safer method, being less liable to be followed by secondary hemorrhage. This proposition has been absolutely proven by the experience in the use of torsion at Guy's Hospital, London, and I have now given additional proof by the experience given in this paper.

3. Healing is facilitated because the wound is free from any irritating or foreign body. This proposition is so plain that it should not require an argument. It was true before the antiseptic treatment of wounds had come into such general use, but it is doubly so now. The catgut ligature is no doubt a safer ligature than the silk, for it does not require an ulcerative process for its discharge, and when this ligature has been made thoroughly antiseptic, it is no doubt the best. But a ligature rendered thoroughly antiseptic is not always at hand, and those surgeons who have had most experience with the antiseptic treatment of wounds, will, I think, be the first to admit that, in spite of their most careful attention, septic germs are often introduced into the wounds by means of the ligature. Even after every precaution in preparation and preservation, the handling of a ligature in its application is a frequent source of infection. But there are other objections to its use. The catgut ligature may dissolve before the artery has become closed by the natural hemostatic process, or it may unbind. Both of these accidents have been the frequent cause of secondary hemorrhage.

On a recent visit to some of the principal hospitals of New York City, where the operators and assistants possessed the greatest skill, I was not surprised to see that in many instances a ligature broke, and in other cases slipped off the vessels before they were secured. This was to me exceedingly annoying to witness, when I knew that the vessels could have been so easily twisted while they were in the grasp of the forceps. When the question was asked one of these operators, a distinguished surgeon: "Why don't you resort to torsion?" the reply was: "we are afraid to trust it." This answer might have been given with equal force by Richard Wiseman in the 17th century, when asked why he did not resort to the ligature instead of the red-hot iron.

In a matter so important as the arrest of arterial hemorrhage, it is proper that surgeons should be conservative; but there is such a thing as pushing conservatism too far. In the torsion of arteries, I claim we have an improvement upon ligation; its

claims for recognition rest upon physiological arguments, which cannot be shaken, and its reliability as a hemostatic has been proven by abundant experience.

CHRONIC PERIOSTITIS WITH EFFUSION TREATED WITH ASPIRATION AND INJECTION OF EMULSION OF IODOFORM AND GLYCERINE.

BY JOHN B. CRANDALL, M. D.,
STERLING, ILL.

The subject of this communication was a young woman, sixteen years old, living in Clinton, Iowa. My first examination of this patient was in the summer of 1889. She had then an enlargement of the right tibia with tenderness and lameness of the knee after much exercise in walking. After hearing the history of the case I came to the conclusion that there might be a specific complication, and so I put her on the syrup of iodide of iron. She improved for a time, and I lost sight of the case until about May 1, 1890, when she came to Sterling for treatment and remained for two months. The left knee was now swollen, painful at times, and tender upon pressure, with more or less effusion bulging the patella and setting back under the tendon of the quadriceps extensor. I aspirated the knee, and drew off something like one-half a pint of fluid. The fluid was straw-colored, and after standing for twenty-four hours, a portion of it became ropy and albuminous. The accumulation reappeared and in forty-eight hours was as great as upon the first examination. I then aspirated the same as before with the same results. In order to check the effusion I now filled a large hypodermic syringe with an emulsion of iodoform and glycerine, and injected this down over the tender point, which was upon the lower end of the outside of the femur a few lines above the articulation. I then ordered complete rest and had the limb encased in a flannel bandage, to be applied several times a day after saturating in as hot water as the patient could stand with comfort. I also ordered pills containing protiodide of mercury which were given for some weeks. This was followed with the syrup of the iodide of iron, with good results. The patient made a favorable recovery, and is now walking upon the limb, and has had no further effusion about her knee.

It was interesting to note in this case how promptly the tendency to effusion was checked by the injection of the emulsion of iodoform and glycerine. A part of the good result must be attributed of course to the bandaging and the hot water, and perhaps a good deal to the specific medication.

DISLOCATION AT THE OCCIPITO-ATLOID ARTICULATION.

BY E. L. ANNIS, M. D.,
CORONER OF LA PORTE COUNTY, LA PORTE, IND.

The occipito-atloid articulation is one of the strongest found in the human anatomy; it is a double arthrodia, and is held together by seven ligaments. Dislocations are so rare in this region that I may perhaps be pardoned for reporting the following interesting case falling under my observation.

I was called in my official capacity about six P. M., on the thirty-first of May, to hold an inquest over the remains of a man who had just been killed in a saloon in La Porte. On arriving at the place, I found a slender man about five feet four or five inches in height, and weighing about one hundred and twenty-five or one hundred and thirty pounds. I recognized a well-known saloon habitué, and made a superficial examination to discover the cause of his rapid "taking off." There was a bruise over the bridge of the nose and superciliary ridge. The nasal bones were loosened, and a slight flow of blood escaped from the nares. I noticed an unusual mobility in the cervical region, and came to the conclusion that there was an atlo-axoid dislocation. I at once called Dr. R. O. Crandall, of our city, to perform the autopsy, a practitioner of over forty years' experience and well qualified to do the work competently and thoroughly. He proceeded and, after carefully separating the muscles, found a complete backward dislocation of the occipital bone with a rupture and stretching of all the ligaments involved. The finger easily passed between the two bones. His judgment was that the separation was greater on the left side, and that the ligaments were more completely ruptured on that side. The chest was next opened and the heart and lungs were found normal, as were the blood-vessels. The abdomen was next examined. The mucous membrane of the stomach was slightly congested, but otherwise normal, as were the

spleen and pancreas. The kidneys were "hog-backed," but the tissue and pyramids were normal in appearance. On external view no other discoloration, bruise or injury was detected, and the opinion was given that the dislocation above described had produced instant death. I next proceeded to summon the witnesses to the killing, and it was developed that the man had been struck a blow in the face by the clenched fist of a sturdy young farmer from an adjoining township, and at once dropped dead. The assailant was about twenty-three years old, five feet five or six inches tall, and weighed about one hundred and sixty pounds, a strongly-built, muscular man capable of striking a powerful blow. The evidence was strong that he held nothing in his hand. It is but proper to state that he was somewhat under the influence of liquor and the man who suffered the dislocation was quite drunk. This may have been an important factor in the causation of the injury, as the relaxed muscles of one in this condition could offer no resistance to a powerful and suddenly-applied force.

From these facts a verdict was rendered that the man's death was caused by pressure upon the cord, as a result of this occipito-atloid dislocation following the blow in the face. The assailant was recently tried and convicted of manslaughter and sentenced to two years in the penitentiary.

The older writers maintained that this dislocation was impossible from the application of any external force, a fracture of the vertebræ occurring before a dislocation; but it is now thought that any severe, sudden force exerted, either from before, backwards or *vice versa*, may produce it. In the *International Encyclopædia of Surgery*, five cases are cited caused in various ways, the force being conveyed through the cranium to this articulation. The case above given is well authenticated and its rarity is the only reason I have for publishing a description of it.

Rates on Surgical Chairs.—The Inter-State Commerce Commission has ordered that the present rate on surgical chairs be reduced—if shipped in less than carloads—from double first-class to first-class, or a reduction of about one-half in the rate. This was what the rate was formerly for a long period of time, and until recently, when it was advanced to double first-class, under the analogies of classification.

HOSPITAL NOTES.

HARLEM HOSPITAL, NEW YORK.

SERVICE OF DR. THOMAS H. MANLEY.

Abdominal Injury.

Dr. Manley said that the greater part of the afternoon would be occupied in the consideration of the surgical management of abdominal lesions: traumatic and pathological.

The first case was one of a man 36 years old, suffering with traumatic peritonitis. The patient while in a brawl, the previous Sunday night, was stabbed in the abdomen with a pocket-knife. The blade was driven in its full length, and was then drawn across the abdomen, diagonally to the median line, immediately below the last floating rib, in the right side. The wound was about five inches long. Immediately there was extrusion of the stomach, the transverse colon, omentum and small intestine.

The patient was brought in by the ambulance, one hour after the wound was inflicted. The house surgeon, Dr. Dade, after proper precautions, returned the extruded viscera and closed in the wound, without drainage. Strange to say none of the viscera was wounded. The man did well until the morning of the third day, when tympanites appeared, the pulse beating at 140 per minute, and the temperature being 104°. In fact septic infection had developed. Dr. Manley now re-opened the wound, removing all the sutures, when a large quantity of dark, curdy serum escaped. He said, with his fingers within the peritoneum, he could easily feel the edge of the liver along its lower border, and the bare intestines. The peritoneal cavity was now freely irrigated with warm, sterilized water, the edges of the wound were brought partly together with adhesive straps, and antiseptics were applied.

Hernia.

The next case was one of a young man of thirty, who had a reducible inguinal hernia. The fellow had it but six months as far as he knew, and latterly it gave him such distress that he came in to have an operation done. No truss would completely keep it up. It would slip down on either side of the bulb, in spite of all he could do, and

hence he had to throw the truss aside, and wear a suspensory-bag. Latterly it had attained such size, that a great prominence was visible, under the trousers, and when he assumed an upright posture, he had a most distressing feeling of nausea and retching.

Dr. Manley said that on careful examination in the ward he found the protrusion, probably displaced and hypertrophied omentum; that it was evident though the extruded epiploon could be returned, it was not so with the sac, which he said he knew by its feel was an old one; intimately and rigidly adherent to the spermatic cord. He said that this hernia was, as the vast majority are, of a congenital or pre-natal origin, the testis and cord as they entered the inguinal canal carried with them a particular fold of the peritoneum, the sac; and it was preserved, till late in life, when the parts were put on the strain and the rings so weakened that it allowed the abdominal contents to enter.

Dr. Manley said that he regarded the prognosis here as remarkably good, and that he felt he could, with almost a positive certainty, promise a cure. He would remove the cause, practically, by three steps, viz., 1. Open the sac, drag the slack omentum well out and cut it off. 2. Attack the whole immense indurated sac close to the peritoneal border, and next obliterate the ring. He would depend on adhesive inflammation, internal and external, to fix and retain the viscera at the gap and seal the gaping vent.

The operation was commenced by making a free incision about five inches long, dissecting away the sac and removing an enormous omental mass. Then he sewed the strip of omentum into the widely-separated pillars of the ring.

Laparotomy Avoided.

Dr. Manley next presented a woman who was placed under his care by the patient's family physician for a laparotomy for peritonitis. Dr. Manley said, with the aid of the time-honored mercurial inunction over the abdomen, and morphine internally, the woman had rapidly recovered without the use of the knife and would be discharged in a few days, cured.

(NOTE.—One week after clinic. The patient with stab wound was doing well, and the hernial case rapidly recovering without any untoward event.)

PERISCOPE.

Kraurosis Vulvæ.

Dr. Charles N. Smith, of Toledo, Ohio, says, in the *Buffalo Medical and Surgical Journal*, October, 1890, that Mr. Lawson Tait, in 1887, described, under the name of "Serpiginous Vascular Degeneration," a diseased condition of the nymphæ, which was essentially a progressive atrophy of these parts, attended with the appearance of exquisitely sensitive areas of a brick-red to purplish color upon mucous membrane. These sensitive areas had a tendency to disappear after a time and appear in another situation, or extend in a serpiginous manner. This extension generally continued until the whole inner surface of the labia minora and the vestibule had been traveled over. These spots were so sensitive to pressure that intercourse could not, as a general thing, be tolerated. The disease was one of long duration; little amenable to treatment; recovery generally spontaneous; and resulting in atrophy of the nymphæ and narrowing of the vaginal opening. This condition generally occurred, as observed by Mr. Tait, at or after the climacteric, although he reports one case in a girl of seventeen years.

It is very often, but by no means always, associated with vascular caruncle of the urethra. . . . This affection has been alluded to by Simpson and various other authors, but no description which Mr. Tait has seen includes all the facts that may be observed in connection with it. It is always confined, in his experience, to the mucous membrane on the inner surface of the nymphæ, and is never met with on the labia majora or in the vagina higher than the vestibule.

Dr. Smith says that the disease does extend to the labia majora, although not observed there by Mr. Tait.

As to the course and final termination of this disease, Mr. Tait says it is, in fact, a progressive atrophy of the mucous membrane, the last textures affected being the blood-vessels and nerves; for when the process has been completed, the pain ceases, the redness disappears, and nothing remains but a vestibulum vaginæ so narrow that incredulity may be excused when the patient states that she has given birth to children.

The treatment recommended by Mr. Tait is the application of strong carbolic

acid to the red spots, and the insertion between the labia, at bed-time, of a tampon wet with a suturated solution of neutral acetate of lead in glycerine.

In a recent paper, Dr. H. H. Ohmann-Dumesnil reports thirty-five cases which he has collected from various sources, including three cases observed by himself. Breisky's cases are included, but no reference is made to those seen by Tait. Robert F. Weir first described a case of this disease in March, 1885. In these thirty-five cases the presence of thickened areas or plaques of various colors, red, gray, milky, or pearly or opaline, is mentioned as occurring in nearly all. Atrophy of some part or parts of the vulva was present in all. In some of them the labia majora were affected, which is contrary to the observations of Tait. Pruritus, a condition not mentioned by Tait, was present in fifteen, and ranged in severity from moderate to intense. Of the thirty-five cases, four had suffered from syphillis. Gonorrhea had occurred in two. Leucorrhea, a condition present in all of Tait's cases, is mentioned as being present in eleven cases.

Treatment was generally successful in those cases which were seen in the earlier stages, but was unsuccessful in the atrophic stage. The treatment consisted in curetting the spots, and in the application of liquor ferri sesquichloridi, lotions of salicylic acid, pyrogallic acid and acetic acid.

Dr. Smith describes a case under his care as follows: "Mrs. A., aged fifty-two, married, and the mother of two children, the younger aged sixteen, consulted me in April, 1888. She was of a marked nervous temperament, slight and delicate figure, but apparently in good health. She had never had syphillis nor gonorrhea. Six years before, and four years prior to the cessation of menstruation, she first noticed a pruritus vulva, attended with pain and scalding upon urination. The pruritus gradually increased for about one year, when she consulted a physician, who found and removed a urethral caruncle. Following the operation there was relief from the pain and scalding upon urination, but no abatement of the pruritus. On consulting a second physician, several months later, she was told that her trouble was undoubtedly the result of diabetes. She was therapeutically and dietetically treated for diabetes for nearly a year, and was given carbolized washes and various ointments for the vulva. The carbolized washes somewhat relieved the pruritus, although it was always present in some degree. This physician made no local examination and never examined the urine for sugar, although he was positive in his diagnosis of diabetes."

He says he carefully examined several specimens of her urine, obtained at different times, and found no trace of sugar.

On examination of the vulva a most peculiar condition was found. The hairs on the parts were few, harsh and gray. The vulva was slightly gaping. The labia majora were shrunken, inelastic and composed almost entirely of integument, the subcutaneous tissue having nearly disappeared. A little over one-half of the lower or posterior portions of the labia minora were atrophied, while the upper portions were natural in size and appearance, except for the purple spots mentioned below. The vaginal opening was so narrowed that only the small virgin size of Sim's speculum could be inserted. About one-fourth of an inch below the meatus urinarius was an exquisitely sensitive patch of dark purple color, a little over one-fourth of an inch in width, and extending downward and to the right for about one-half of an inch. Another similar spot, but smaller, was found on the inner or vaginal surface of the upper portion of the left labium minus. Small and exceedingly thin membranous tags were all that remained of the hymen. The clitoris was normal. The integument of the lower portion of the labia minora and on the inner surface of the labia majoria was dry, smooth, shining, and bluish-white in color, with here and there a few small thickened spots of a milky-white color. The spots, and the atrophied areas generally, were not so sensitive to pressure as were the red spots. In fact, the kraurotic changes seemed to have been nearly completed in the lower portion of the vulva, while they were still progressing in the upper portion. The uterus measured over two inches in depth. A slight thin discharge escaped from the os.

Thinking that the pruritus might possibly be caused, or at least aggravated, by the discharge, Dr. Smith inserted into the vagina or had the patient do so, twice a day a dry absorbent cotton tampon to collect the discharge and prevent its escape into the vulva. This was continued for two weeks with no result. Having, by this time, decided that nearly the whole trouble arose from the two purple spots, he applied to

them equal parts of tincture of iodine and carbolic acid. This treatment resulted in a considerable diminution of the pruritus, but did not remove the spots. He then applied pure carbolic acid, which caused excruciating pain, but was, in a short time, followed by complete relief of the pruritus. These applications were continued from time to time, until the spots were entirely destroyed, or at least until they disappeared. Following the disappearance of the spots was a considerable, but not total, relief from the pruritus. Gradually the pruritus grew less and less until it, too, disappeared. In the two years which have elapsed, since the cessation of treatment, there has been no return of the sensitive spots or of the pruritus.

Uses of Exalgine.

Dr. J. S. Holden writes in the *Lancet, British Medical Journal,* September 27, 1890:

I have used exalgine very frequently since reading Professor Fraser's clinical lecture on the subject, and my experience with it inclines me to the opinion that if generally tried exalgine would take a permanent place among our analgesic remedies, and its proper therapeutic dose and range of usefulness would soon be determined. I consider the proper dose to be half a grain, and not to exceed one grain. This is absolutely safe and free from poisonous effects. As a rule the half-grain dose, in suitable cases, will relieve pain for a short time, perhaps half an hour; on its return a second dose will give a longer immunity, though a third or fourth may be required. I seldom prescribe more than four doses, with instructions that when the pain returns the dose is to be immediately repeated. When the pain is very severe commencing with a double dose is more effectual.

If exalgine fails to relieve pain after the administration of two grains, divided in this manner, I think it is best to let it alone and try some other remedy. From the various published accounts of the poisonous effects which have followed four or five-grain doses of exalgine, it is evident that such doses are dangerous. To derive the greatest benefit from the small doses they should be taken on an empty stomach.

As to its range of usefulness, I find that exalgine is generally efficacious as an analgesic in thin, spare persons of nervous temperament and subject to neurotic ailments, while it fails with the robust, plethoric, or phlegmatic, whose functional pains more often proceed from dietetic causes. It is useless in relieving pain due to mechanical or organic lesions; this often accounts for its failure in apparently suitable cases, where the cause of the pain is obscure.

The first case in which I administered exalgine was that of a young lady with abscess of the antrum, which was lanced; she had three days of pain and sleeplessness, only partially lulled by morphine. One-grain dose of exalgine removed the pain and gave her four hours' refreshing sleep. Nor did she require to repeat the dose. About the same time a delicate, deformed gentleman, whom I was attending for epistaxis, fell off his chair and bruised his sternum against a fender; several hours afterwards he was seized with acute pain in the affected part; this was quite arrested by four half-grain doses of exalgine.

These successes encouraged me to use it in all forms of pain with the following general results: During the late epidemic of influenza it invariably more or less alleviated the frontal and orbital pains which were so marked a symptom of that peculiar disease. In most cases of facial neuralgia and of toothache, not due to caries, it was successful, so much so that some lady patients are loud in its praise. In gastralgia it is uncertain, though a few cases experienced great relief from pain; one of these was recovering from ulcer of the stomach and was much benefited by the half-grain dose four times a day. It certainly gives relief in functional cardiac pain and in attacks of imperfect angina. I have not found it at all successful in allaying the pains of lumbago or sciatica in the cases I have tried it.

It is not to be expected that exalgine will do more than give temporary immunity to painful neurotic affections, which is all that other analgesics confer. It has, however, the advantage, when given in small doses, of being perfectly safe and free from those inconveniences which accompany the administering of narcotics, and which have nothing to do with the relief of pain.

Surgical Treatment of Epilepsy.

In deciding as to the effect of surgical treatment in this malady, a distinction must be drawn between relief and cure, and the circumstances that any operative procedure

attended by severe shock may materially modify the severity of symptoms, has undoubtedly been an important factor in producing reported cures; cures which, if the subsequent course of the case had been observed, would have been found to exhibit only a temporary amelioration of symptoms. Probably every one is familiar with such cases. If the success of operative procedure is calculated from statistics gathered from journal reports, it is extraordinarily large.

Probably no one doubts but that gross lesions affecting the motor areas and producing the so-called "Jacksonian" epilepsy may be relieved by operation, and in this case the *modus operandi* is exceedingly simple and comprehensible. Even in cases of definite peripheral irritation giving rise to cerebral symptoms, it is comprehensible that the operation relieving such irritation may guard against the recurrence of the convulsion. Thus the excision of scar tissue has many times effected lasting cures, while the beneficial effects of circumcision and other minor operations for the relief of local irritation are generally acknowledged.

Dr. Wood (*Western Medical Reporter*, July, 1890), gives an interesting *résumé* of the many surgical means which have from time to time been employed for the cure of epilepsy.

Of the various operative procedures which have at one time or another been commended, may be mentioned phlebotomy, ligature of the carotids, ligature of the vertebral arteries, tracheotomy, trephining, circumcision, castration, removal of the ovaries, removal of the clitoris, nerve stretching and tenotomy of the ocular muscles. Hare (*Epilepsy, its Pathology and Treatment*), in the discussion of operation for the relief of possible peripheral irritation, writes as follows: "Like every other measure of relief, it is probable that a greater usefulness was claimed for it than was deserved, and probably many persons are lacking foreskins, ovaries or clitoris by reason of the search for peripheral enemies of the health."

As a curious fact, brilliant successes are recorded as resulting from all these operations, even when the parts operated upon were healthy, and there was no good reason to suspect that they were pregnant sources of reflex irritation.

In contrast to the surgical operations directed to the cure of epilepsy, is the long series of cases by which active counter-irritation by means of setons or issues, or by means of accidental wounds or burns, has also resulted in great amelioration in the severity of the disease. It would seem that in cases of idiopathic epilepsy any severe operation may modify the severity of the attack, or, if certain recorded cases can be believed, may permanently cure the disease.

The curative effect of operation *per se* is one which has been seen by every surgeon, and one which we are bound to believe exercises a most powerful influence.

If this doctrine be accepted, it would seem far better to perform operations which in themselves do not seriously endanger life, and since counter-irritation, especially when applied about the base of the skull, has been followed by many excellent results, it would seem desirable to so locate the seat of operation that, together with the mental and nervous effect, might be associated the derivative influence resulting from the local inflammation.

Of course, when gross lesions or distinct foci of irritation are present, these imperatively demand surgical attention, but in the absence of these an operation such as that of castration or oöphorectomy, performed solely for systemic effect, would seem to be entirely unjustifiable, since less severe procedures may advantageously take its place. —*University Med. Magazine*, October, 1890.

Action of Caffeine.

The physiological action of caffeine is summarized by MM. Germain Sée and Lapicque, as follows:

1. Caffeine in small and repeated doses, about 60 centigrams (about ten grains) a day, facilitates muscular work in augmenting the activity, not directly of the muscle itself, but of the motor nervous system, cerebral as well as medullary. The consequence of this double action is to diminish the sensation of effort, and to avert fatigue, which constitutes a nervous and at the same time chemical phenomenon.

2. Caffeine prevents breathlessness and palpitations consecutive to effort, which is of great importance.

3. It thus immediately communicates to a man who gives himself up to violent and prolonged exercise the aid that he requires.

4. In producing this excitation of the cerebro-spinal motor system, on which depends the augmentation of the muscular tonicity, the caffeine augments the waste of

the carbon of the body, and particularly of the muscles, but does not restrain the nitrogenous waste. It, therefore, is not, in the strict sense of the word, a means of saving.

5. A saving action in general can take place in the higher animals in a complete manner to prevent the injurious effects of fasting, only in a condition impossible to realize, namely, inaction or immobility, more or less absolute, where there is little expenditure without work. With caffeine we observe just the reverse, that is to say, intense work, which we will obtain only at the expense of the wear and tear of the organism. The animal machine can work only in consuming combustible matters, and it is precisely in promoting this combustion that caffeine permits muscular work even during fasting.

6. Caffeine has not, as is generally believed, the marvelous property of replacing food; it only replaces the general tonic excitation which the ingestion of food produces. It is admitted that it is the direct and instantaneous action of the aliments which stimulate the stomach and nervous system, and that their alimentary value is at first nothing; one might substitute one stimulant for another. Caffeine, far from sparing the reserves, will place a fasting man in a position to undertake his work only by attacking these reserves, the destruction of which it hastens by the excitation of the nervous system and by its medium that of the muscles; the organism will then soon use up its nutritive supply, and the caffeine will not prevent it. It is, nevertheless, of incontestable but temporary utility for the physical forces. — *Western Druggist*, September, 1890.

Venesection for Lead Poisoning.

Dr. W. E. Hughes says, in the *University Medical Magazine*, October, 1890, that venesection is a method of treatment of lead poisoning comparatively new, and little practiced and yet in the cases here recorded, so satisfactory, he thinks it well worth while to secure for it more prominent attention.

Dr. W. E. Hughes says, that a man 39 years old was admitted to the Philadelphia Hospital May 24, 1890, with symptoms of lead poisoning. Examination showed a very marked blue line on the gums; impairment of power in the right hand, less marked in left; wrist drop not absolute. The patient was able to raise his hand until it was in a line with his forearm. Attempts to raise his hand caused a spasm of the flexor muscles of the forearm and of the thumb. The spasm was quite severe, but did not last long, and the hand could then be brought on a line with the forearm.

On May 26, the patient was bled—f℥xvi being taken. One and a half hours later the hand could be raised nearly three inches higher than before he was bled, and muscular spasm was entirely absent. Sixteen hours after bleeding, flexion and extension were almost perfect. The grip was much better, and the pain in the abdomen was much less severe. Twenty-six hours after bleeding the condition of both arms was normal, and the patient had a normal bowel movement. Three days later the patient had a short but quite severe attack of colic. The bowels were moved normally; the blue line was gone. A few days later he was discharged cured.

In this case the results of treatment were most satisfactory. One bleeding cu r d instantly and permanently the spasm of the right hand. Not only this, but within few days the abdominal symptoms, and eve the blue line on the gums, had disappeared.

Dr. Hughes describes another case evidently of longer standing than the preceding one. Here the principal result of the bleeding was the restoration of power to the forearms. The abdominal symptoms were less relieved, still they yielded more rapidly to subsequent treatment than would be the case where bleeding had not first been resorted to. The man when admitted was markedly cachectic. This cachexia was uninfluenced by the bleeding, but has been since steadily disappearing under treatment.

In a third case there was comparatively no cachexia, and the results of bleeding were decided and permanent.

While these cases are too few in number to base any extended conclusions upon them, yet the results of bleeding were certainly much more satisfactory than those likely to be obtained by any other treatment. None of these cases had probably gone on to any organic lesion of the nervous system. The relief is probably due to two caues: First, to a relief of focal congestion in the cord or nerves; second, to a change in blood tension, facilitating the rapid elimination of the lead. No observations were made upon the lead in the blood, nor on the elimination of the lead after bleeding.

THE

MEDICAL AND SURGICAL

REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

KOCH'S METHOD FOR CONSUMPTION.

The danger of making announcements of proposed cures for diseases which have long defied medical science, is receiving a new illustration in the developments concerning the hopes received by Prof. Koch's announcement at Berlin, that he had discovered a method of treating tuberculosis by some sort of inoculation. Since that time the newspapers have contained various statements—some that the method was a success and would shortly be generalized, and others that Koch was asking for more time in which to perfect it, and again that he was endeavoring to generalize the principle so that it should include not only consumption, but also a variety of other diseases. Meanwhile those who have watched the history of similar procedures may possess their souls in patience, and not allow themselves to be too much elated at the prospect of speedily reaching a goal, towards which, for thousands of years, the medical profession has been striving, without making any very startling progress.

It would be so great a boon if some method could be devised by which the human system could be made incapable of contracting a disease which now destroys so large a proportion of the human race, or if it could be actually "cured" with such promptness as has recently been asserted, that it is no wonder investigators should hail Koch's announcement with delight, and be a trifle too ready to accept it.

But it may be well to remember when such scintillations from the laboratory appear and attract universal attention, that so far there is no known method of preventive inoculation which is in general and practical use, and which has been proved to be successful, if we except that of vaccination—which is so totally dissimilar in philosophical principle from the recently proposed methods with which the name of Pasteur is inseparably associated, that it is hard to understand how so many men belonging to a profession requiring a certain amount of logical acumen, should have overlooked the fact. Furthermore, if we call to mind Pasteur's announcements during the past twenty years, and remark how almost unheard of they are to-day, while the diseases—in grape vines, in silk worms, in swine, in dogs, and in men—for which they were proposed with such confidence, are still flourishing in various parts of the world, it seems cruel or unprincipled to announce with so great positiveness a preventive or curative treatment for consumption, unless it is such that its details can be published without any of those charlatan-like tricks which seem to be regarded by certain experimentors as perfectly legitimate.

We cannot but condemn the secrecy with which Koch is said to guard the details of his method of treating consumption, though

we would most earnestly hope that it might prove successful.

So far, however, we may say to the readers of the REPORTER there is in the accounts published about it nothing except food for curious and interesting speculation.

This is a judgment which is deliberately formed, and which we put on record now, partly as a protest against the haste with which some members of the profession accept illusory promises, and partly to prevent other men and women from running into what we believe to be a road to most bitter disappointment. But history is sometimes made very fast; and if we are wrong no one will rejoice more than we shall.

HERMAPHRODITISM.

In the *Gazette Hebdomadaire*, July 26, 1890, Dr. Pozzi gives an interesting review of hermaphroditism. The word is a compound of two Greek words, Hermes and Aphrodite (Mercury and Venus), and signifies a condition in which one person has the special sexual organs of the two sexes, each capable of functional activity. The possibility of such a condition was believed in thoroughly by the ancients, and is also maintained by some modern writers, such as Schultze, Rokitansky, Heppner; but all the cases referred to by these writers prove, when carefully studied, to be malformations of the genital organs, or arrests in development in the embryoneal stage in man; or they are the result of excessive development of certain parts in women. The individuals of the first class are incomparably more numerous than those of the second; that is to say, most pseudo-hermaphrodites are males with hypospadias.

While true hermaphroditism in human beings probably never occurs, Bland Sutton, who is well known for his studies in embryology and comparative anatomy, declares that it is the normal condition in the toad, and a very frequent one in the frog, which possesses both an ovary and a testicle. One should be slow, therefore, to deny that its occurrence in man is a possibility. Pozzi makes the following division of hermaphroditism: First, partial pseudo-hermaphroditism in which there exist only some peculiarities of one of the sexes with evident preponderance of those of the other. In this class are included two varieties, the gynandroi and the androgynes, according as the person belongs to the female or male sex. Second, pseudo-hermaphroditism, properly so-called, due to a perineo-scrotal hypospadias in which the external genital organs have an embryonal arrangement, and consequently appear like those of the female, and in which doubt is removed by finding the testicles. Third, pretended true hermaphroditism.

In gynanders the external organs of the woman simulate to a great degree those of man, and this is brought about by hypertrophy of the clitoris and prepuce which look like a penis, and union of the labia majora, and even at times of the labia minora, which look like a scrotum and hide the vaginal orifice. The resemblance to the male organs is still more pronounced when there is hernia of an ovary near the anus or into the labium majus.

Androgynes are men with one testicle or concealed testicles, who present certain external characteristics of women, among others, exaggerated development of the breasts. In these cases the masculine type of external genital organs exists, the scrotum is united and is surmounted by a penis with perforated glans. But the absence of testicles from the scrotum, the slight development of the penis, the median depression of the scrotum which simulates the two labia majora in apposition, the size of the breasts, which may be as much developed as in women, and, finally, the presence of folds like the labia minora, forming a ridge upon the scrotal raphe, all give the person a feminine aspect.

To the second class (pseudo-hermaphroditism properly so-called), belong the great

majority of the cases observed. It is made up of men with scrotal, or perineo-scrotal hypospadias. These persons are as a rule regarded at birth as belonging to the female sex, are baptized as girls and receive the costume and education of such. A great number of them have been married; nearly all have intercourse with men through the urethral orifice, which is deepened in the infundibulum, and still more by the vulvar depression which exists below this. But, at the same time, many have desire for women and perform coitus more or less incompletely. In some cases irregular menstruation is simulated by hemorrhage from the dilated and irritated urethra, and it is said that undeniable instances of feeble and intermittent menstruation have been observed in gynanders.

As regards the third class—of true hermaphrodites—it has been intimated already that it probably has no actual existence. Pozzi's opinion may be inferred from the fact that he affixes the adjective "pretended" to the class. It may be of historical interest, however, to note that Klebs has made a theoretical classification as follows: bilateral hermaphroditism, in which there exists on each side both a testicle and an ovary; unilateral, in which there is on one side both a testicle and an ovary; and lateral, in which there is on one side a testicle and on the other an ovary. The supposed cases of true hermaphroditism, as already stated, have not proved to be such on careful dissection by a competent embryologist.

THE ALLEGED FASTER.

It is now reported that Mrs. Wuchter, the alleged faster for more than six months, has begun to take nourishment in public, and has abandoned her pretense of being unable to talk. She now converses rationally it is said—and joins in the singing of hymns conducted at her bedside by the choir of a church near by. The probability is that she will soon begin to eat regularly and without concealment.

As to what she has been doing all these six months there can be no certainty, unless she or some one else describes it. Of course she has not lived without food for so long. No human being ever did. The case most resembling that of Mrs. Wuchter was that of the so-called "Welsh Fasting Girl," in 1869, whose parents claimed that she lived without eating; but when she was put under conditions of observation, by medical men who could not be deceived, she died in eight days—showing that she had a wonderful determination, but no power to live without food.

The crucial test of Mrs. Wuchter's veracity any time during her fast would have been to give her unwarned an emetic and a purgative, and to have observed the result. The nearest the REPORTER has been able—without aiming at a sensational effect—to come to this test, has been to procure a report of an examination of the feces which this woman actually passed. This report, made by Dr. Edgar M. Green, of Easton, Pa., will be found in the Department of Correspondence. From it, it will be seen, that the feces examined contained just what might be expected in the feces of a woman eating little, and suffering with chronic constipation. This precisely fits our estimate of the case, except that it leaves out of account the hysterical or fraudulent element, which we have no doubt is—or was—present in it.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

A TEXT-BOOK OF PRACTICAL THERAPEUTICS, WITH ESPECIAL REFERENCE TO THE APPLICATION OF REMEDIAL MEASURES TO DISEASE AND THEIR EMPLOYMENT UPON A RATIONAL BASIS. By HOBART AMORY HARE, M. D. (Univ. of Pa.), B. Sc., Clinical Professor of Diseases of Children and Demonstrator of Therapeutics in the University of Pennsylvania. 8vo, pp. 632. Philadelphia: Lea Brothers & Co., 1890. Price, cloth, $3.75; leather, $4.75.

After careful personal examination of this book, and taking unusual pains to see how it impressed other and more competent critics—we are compelled to say that we believe it is not a book to be commended.

This opinion is formed by reflecting upon its literary blemishes; its curious statements in pathology; its loose, and at times absurd, descriptions in symptomatology; and its unguarded and even dangerous suggestions for treatment. To cite examples of what we have in mind, we have here no sufficient space; but the reader who has not access to the book may perhaps get a clue to the peculiar character of its failings from the fact that the author—although Secretary of the Convention to revise the U. S. Pharmacopœia—repeatedly gives wrong names to drugs and makes blunders in the Latin of his prescriptions; and—although he has not been practicing medicine seven years—does not hesitate, in spite of the opinion of many practitioners of experience as well as that of Dr. Jacobi, who has made so careful and prolonged a study of diphtheria, to say that chlorate of potash should *never* be given in this disease; while, in the same section, he makes the suggestion that it may be treated with corrosive sublimate in doses ranging from $\frac{1}{10}$ to $\frac{1}{2}$ a grain!

A work on therapeutics should bear the marks of extensive experience, careful observation, wise generalization and exact statement. These marks, we regret to say, we cannot find in Dr. Hare's book. With this, its tone is so often supercilious or contemptuous towards those with whom the author does not agree, that he will have no right to complain of criticism which he may think harsh. A writer who shows so little respect for his predecessors in the art of medicine, who so boldly contradicts what men of much larger experience assert, who dedicates his book to a surgeon and describes surgical work as "slashing," cannot expect to be handled tenderly when he enters the lists of science or of literature.

A COMPEND OF EQUINE ANATOMY AND PHYSIOLOGY. By William R. Ballou, M. D., Professor of Equine Anatomy and formerly Lecturer on Physiology, New York College of Veterinary Surgeons, etc. With twenty-nine graphic illustrations. Small 8vo, pp. 205. Philadelphia: P. Blakiston, Son & Co., 1890. Price, $1.00.

This book forms No. 12 in the Blakiston series of quiz-compends. It is intended for the use of students of veterinary medicine. The illustrations have been selected from Chauveau's well-known *Comparative Anatomy*. The author's past experience as a quiz-master and teacher of anatomy has enabled him to compile a book which will no doubt be of great assistance to students, and will be properly appreciated by them. We confess to a dislike of the expression "Equine" Anatomy; but perhaps it is the result of prejudice.

THE ESSENTIALS OF MEDICAL CHEMISTRY AND URINALYSIS. By Sam E. Woody, A. M., M. D., Professor of Chemistry and Public Hygiene, and Clinical Lecturer on Diseases of Children, in the Kentucky School of Medicine. Third Edition, revised, enlarged and illustrated. Small 8vo, pp. viii, 157. Philadelphia: P. Blakiston, Son & Co., 1890. Price, $1.00.

The first ninety-six pages of this little book are given to a review of inorganic chemistry, including the hydrogen and oxygen group of elements, the chlorine group, the sulphur group, the nitrogen group, the carbon group, metals of the alkalies, metals of the alkaline earths, metals of the earths, the zinc group, the iron group, the copper group, and the silver group. The following twenty-two pages, which form Part II, are taken up with organic chemistry—hydrocarbons, alcohols, ethers, aldehydes, organic acids, the carbohydrates, glucosides, nitrogenous bodies, and alkaloids. Urinalysis is compressed into fourteen pages, and completes the book.

The descriptions in the text are clear and terse, and the illustrations have been chosen with excellent judgment. In the part devoted to Urinalysis, a surprising amount of information is given in a small space. The spermatoza figured on page 143 have rather flat heads. The book is well printed, and presents a better general appearance than most works of its class. The fact that it has reached already a third edition, indicates that it has met with favor.

CORRESPONDENCE.

The Alleged Faster.

To the Editor.

Sir: In the number of the Medical and Surgical Reporter, September 27, 1890, there was an Editorial on the alleged case of fasting near Allentown. I have thought, therefore, that possibly an item of information concerning the fecal movements of this case might not be uninteresting. Not long ago Drs. E. W. Evans and B. Rush Field, of Easton, Pa., visited Mrs. Wuchter, the alleged faster, and obtained possession of a portion of her stool, which was given to Prof. J. W. Moore, M. D., of Lafayette College, and to me for examination. It was a very hard mass, about one-half an inch in diameter, having a natural color (though at one point very slightly tinged with blood) and with characteristic odor. It weighed forty grains, and was said to be about one-fourth of the entire stool. It is stated that the woman has movements similar in size and character every twenty days. Microscopic examination revealed:

(a) Vegetable tissue in great abundance. This consisted of spiral ducts in great numbers. Many of them were uncoiled. Some of them, however, were not at all uncoiled, but were even still united in pairs side by side. Some large patches of such ducts arranged in parallel groups were to be seen. There were also portions of the veining of leaves, with the parenchyma digested off. Portions of cellular tissue, however, with the cells still grouped together and the edges of the mass smooth and sharply cut, were also to be found.

(b) Crystals of the triple phosphates were present in great numbers.

(c) Fat crystals of the characteristic form.

(d) Blood corpuscles.

(e) Mucus.

(f) Granular detritus in moderate amount and perhaps muscular fibres.

Yours truly,

EDGAR M. GREEN, M. D.,
Pathologist of St. Luke's Hospital,
South Bethlehem, Pa.

Easton, Pa.

Eulenberg and Hermann.

TO THE EDITOR.

Sir: Permit me to state the following in reference to your Berlin Correspondent's assertion that Professor Eulenberg had recently pronounced a young officer named Hermann to be sane, and that the said officer would be restored to his rank and estate in Austria, in consequence of said opinion.

1. Professor Eulenberg is not, and never was regarded as, an alienist.

2. Hermann had been pronounced insane on such high authority, and so repeatedly confined in asylums, that it was the height of audacity for Professor Eulenburg to give (as he did) a retrospective opinion.

3. Unfortunately for Professor Eulenburg his protégé Hermann has since published a book, now in my possession, the color of whose binding is black while the lettering is blood red, whose contents would outweigh a thousand contrary "expert" opinions.

4. Hermann is a "paranoiac" and his sequestration probably prevented just such an act as the recent shooting of Dr. Lloyd.

5. It was not until Hermann found that he could not secure the services of a real alienist to pronounce him sane, that he appealed to one whose reputation as a neurologist might perhaps dazzle the laity, but which can scarcely mislead those of us who are aware that a long experience with myelitis and migraine does not necessarily endow one with diagnostic acumen in the field of mental disorder.

You will probably hear a great deal more of the Hermann matter. For the present I think your readers may rest content that institutions which, like those attacked by Hermann and his unlucky associate Eulenburg, are officered by Meynert, Ganster and Krafft-Ebing are above the criticism of the latter and a safe keeping-place for the former.

Yours truly,

E. C. SPITZKA, M. D.

New York.

NOTES AND COMMENTS.

Deformity of Face Treated with Apparatus.

L. P. Blair, D. D. S., a dentist, describes in the *International Dental Journal*, September, 1890, the following very interesting case.

A young woman, twenty-six years old, came to him with a very peculiar condition of face. The portion which extends from the median line of the lips to the angle of the mouth and from the infraorbital canal to the mylohyoid ridge, was entirely gone. She desired to know if he could do anything for her. Up to the age of six years she had been perfectly healthy; at that time she was taken with tyhoid pneumonia. The physician in attendance gave calomel and quinine; forty-six hours after which a blue spot was noticed on the inside of the cheek. The next morning it was visible on the outside of the face, and before night the portion of her face extending from the eye to the condyle of the jaw and along the mylohyoid ridge and median line of the face developed a line of sloughing, and in a few hours entirely dropped out, exposing the bones. The temporary teeth dropped out and the motion of the jaw ceased and it became ankylosed.

The young woman had had two attempts made with plastic operations, both of which were only partially successful. When she applied to Dr. Blair the lateral, canine and two bicuspid teeth in the left superior maxilla had been removed in order to allow her to eat, drink and articulate. For twenty years she had lived, eating through that small aperture.

She wanted to know if something could not be done to hide that ugly gap. Dr. Blair told her he thought it possible. First he took a plaster cast of the face and molded paraffine and wax upon it until he had the face as near perfect as he could get it. He then took a cast of the face and obtained his die. He next placed sheet wax upon this and forced it into position, thus getting a skeleton form; then trying it upon the face, he found it to be correct. He subsequently made two crowns to fit the lower bicuspids and placed them in position; then two bands to fit upon the crowns in the form of spring clasps, leaving an arm from each extending through the wax form. These arms he fastened securely and re-

moved the form with the clasps in position. Having now the model he desired, he inverted in plaster and proceeded as in plate-work. He rough-finished and sent it to an artist to be painted. The artificial portion of the face was made of pink and brown rubber painted. He simply filed off the outside, polishing thoroughly the inside.

The result was that the young woman had a false part that so nearly resembled the other side of the face that none but the very observing would notice any difference. This fixture obstructed the aperture for feeding; to obviate this difficulty Dr. Blair removed the right centrals, laterals and canines in upper and lower jaw, thus allowing the patient to eat, drink and articulate without removing the appliance. When he reported the case she had been wearing it five months with perfect satisfaction. His report is accompanied by excellent photo-lithographs which show the face before and after the operation, and show a very remarkable and successful result.

Treatment of Dysentery.

In a paper read before the Medical Society of the County of Kings, and published in the *Brooklyn Medical Journal*, October, 1890, Dr. H. A. Fairbairn, attending physician to St. John's Hospital, says that the object of his paper is to give practical endorsement to the statement of Dr. Whittaker, in his article on "Dysentery," in Pepper's *System of Medicine*, that irrigation of the large intestine and the thorough flushing out of its contents are now admitted as the most valuable method of treatment. From personal observation, he believes that this method is not in such general use as one would suppose. He desires to record his success with it after repeated trial, and trusts that those who have made use of it will add their testimony to that already recorded, and that it may prove to all, as it has to him, a remedy to be relied on as sure and prompt.

He says: "To be of use, the enemata must be large and frequently repeated. In some cases I have used them at first every two hours, increasing the interval with the improvement; in others every four hours. As to the quantity, that must be measured, to some extent, by the tolerance of the patient. I find that it is well for the physician to demonstrate this. People, as a rule, have a mistaken idea as to the capacity of the large intestine. If verbal directions simply are given, at the next visit it will be found that a few ounces are announced as a result of the trial. The measure of the capacity seems to be based on that of the external aperture, and the idea of danger is coupled with the introduction of more than a pint: a point well taken in chronic dysentery perhaps, where, no doubt, it would be dangerous to distend the walls of the intestine, weakened as they are liable to be by deep ulceration. But if the case be seen in the early stages, the quantity safely used will be measured by pints instead of ounces. The capacity of the large intestine, as a rule, is about six pints. Three or four pints will suffice in this treatment. As to the temperature of the water, moderate warmth, from 100° to 105°, I find most acceptable, except possibly in the first or second administration, when quite low temperature appears of benefit.

"As to the instrument used, the common syringe serves a good purpose. The fountain syringe needs to be used with care. People little know of the great hydrostatic pressure it brings to bear. The hand on the syringe-bulb is a better guide. The position of the patient on the right side, with the back to the nurse, is the most convenient. The introduction of the first few ounces is met by the patient with loud protests; these decrease with assurances of safety and benefit. I have never used medicinal substances in the water, except in one case, where alum proved of benefit. In chronic cases I have never pushed the treatment. I imagine that very few chronic cases would exist if the cases are treated locally from the beginning. So much for the local treatment. I use it from the first and persist in it. Its annoyance decreases with the repetition.

"Now as to the general treatment: I confine my patients to bed. I deprive them of food as much as possible, whiskey (well diluted), in small quantities, being allowed; this is food, is supportive, and allows the lower canal much needed rest. Milk I do not use unless peptonized, and then only in very small quantities. Prepare it as you may: the excrement will be large if the quantity taken is. I rarely allow more than a quart in the twenty-four hours. If the patient will rest without food for forty-eight hours, I find it of advantage. The fast, as a rule, is not a difficult one, the appetite

being in abeyance. The liquid preparations of beef I do not use in intestinal involvement; with their concentrated salts they act as an irritant: they distress more than they benefit. Eggs, scraped beef, or, when these are objected to, the steak, roast and chop with bread, make up the dietary."

Certain medicinal measures by the mouth are of advantage. Dr. Fairbairn administers a cathartic at the commencement of the treatment. If there be nausea, calomel in small and frequently repeated doses is the drug chosen, otherwise magnesium sulphate. Salol is then ordered and opium in some form if the pain demand.

To sum up: The treatment is simply the application of the antiseptic method—the rational and scientific treatment of a disease which exhibits itself mainly as an inflammation of the large intestine, where much of the havoc is wrought, much of the constitutional disturbance being due to the absorption of septic products.

A Word for the Preceptor.

Dr. I. W. Chisholm, of New Concord, Ohio, writes to the *Columbus Medical Journal*, October, 1890:

"Our medical colleges are fast adopting the three-year graded system of study, and, as we understand it, exclude all preparatory study in the office of the home practitioner. We are furthermore told that this system of study will place the cause of 'medical education' on a higher basis. Then why is it that some we know, who studied under the old regime, found on entering some of our medical colleges that they were as far advanced as those in the 'senior year' of this highly lauded and much to be admired (?) graded system? If this course of the medical Latter Day Saints is to become universally adopted, it should not preclude the preparatory course of study of the home preceptor, but should require it, because by the evidence we have adduced it is the proper method, and we challenge contradiction.

"In our own individual opinion, publicly expressed, what is most needed in our course of medical training for a higher advancement and usefulness, is more of the practical and a great deal less of the didactic, to which a student is compelled to sit and listen. As an illustration, think of a professor giving eight or ten lectures, each of one hour's length, on the pelvis, when all could be said that is really of any practical benefit, either to the coming practitioner or suffering humanity, in one or not to exceed two lectures.

"There is, in my opinion, a vast amount of literary shoddy woven into the texture of the make-up of the didactic lecture-course. Give the student the scalpel, and bistoury and forceps in surgical and obstetrical operations; let him feel the pulse, diagnose, prognose and prescribe at the bedside—all under the care and guidance of the professor; and when he leaves the halls of his Alma Mater he will have the advantages of a trained and experienced eye, touch and judgment, instead of a skeleton knowledge of the 'healing art,' clothed with an appearance of literary down."

International Congress of Hygiene.

The Seventh International Congress of Hygiene and Demography will be held in London during the week beginning August 10, 1891. The Governments of all countries and municipalities and all Public Health Authorities, Universities, Colleges and Societies occupied in the study of the sciences more or less immediately connected with Hygiene are invited to co-operate and appoint delegates to represent them at the Congress. The Prince of Wales will preside.

A Committee of Organization has been formed, of which Sir Douglas Galton is Chairman, and Prof. W. H. Corfield and Mr. Shirley F. Murphy are Honorary Secretaries. An exhibition of articles of hygienic interest will be held in connection with the Congress. The last of these Congresses was held in Vienna in 1887, and was attended by over 2,000 persons, and it is expected that the London meeting will be one of great magnitude and importance.

Removal of Tumor of the Brain.

In the *Australasian Medical Journal* for July, 1890, Dr. Graham and Mr. Grubbe record a case recently under their care in which a hydatid tumor was removed from between the dura mater and pia mater of the brain. The patient was a lad sixteen years of age, who suffered from severe headache, nausea, vertigo, double optic neuritis with atrophy, loss of memory, mental dulness, and paresis of the right arm and leg. A tumor involving the left motor area was diag-

nosticated, and Mr. Grubbe trephined over it. He found the bone not more than one-sixth inch thick, and on opening the thickened dura mater a single simple hydatid cyst was seen, and was easily extracted. The pia mater was intact. The cyst measured four inches in diameter, and held nineteen ounces of fluid. The patient recovered. After six weeks he was able to get up and walk, his memory returned, and in all respects he was well except for his blindness.

Such a case as this was extremely favorable for surgical treatment, as its situation greatly facilitated exact diagnosis, and its removal was unattended with any injury to the brain itself. It is believed to be the first recorded case of the kind. Dr. Davies Thomas records three cases of recovery from cerebral hydatids, in one of which the cysts were passed through the nose and mouth; in two others they were removed through incisions in the scalp after the tumors had perforated the cranium.—*Lancet*, September 13, 1890.

Strangulated Hernia.

At the last meeting of the Buffalo Medical and Surgical Association, Dr. W. S. Tremaine made some remarks on strangulated hernia. He said (as reported in the *Buffalo Medical and Surgical Journal*, October, 1890), that he was well aware that he had not chosen a very new subject, but he also knew that it was not worn so threadbare but that it might afford material for some practical points for the general practitioner. Twenty or thirty years ago our teachers said that in cases of strangulated hernia, we were to continue our efforts at reduction for a long time, and avoid, if possible, an operation. There remains with the older men, more or less of the traces of this early teaching, and he has occasion as a consultant to meet with it now and then. The first point of his remarks was directed to the absolute necessity of early operation in cases of strangulation, if gentle taxis failed to reduce. No case of strangulated hernia will die from an operation, if in proper hands; but will surely die if let alone, and especially if too great and vigorous efforts at reduction are used. Every man who practices when he is not within easy reach of a competent surgeon, should know how to operate for strangulated hernia. A practitioner on encountering a case of strangulated hernia, should either send at once for a consultant, or explain the risks of an operation and the necessity for one. Then, if under chloroform a reduction with slight and exceedingly gentle taxis cannot be secured, the hernia is to be attacked, the sac opened, and the constriction found and released. He related a case where, from the severe and prolonged efforts at taxis, he found the gut black, and he hesitated whether to return it to the peritoneal cavity to make an artificial anus. He remembered Sir Astley Cooper's axiom: "That the belly is the best place for a gangrenous gut,"[1] and slipped it back. The patient made a good recovery. Dr. Tremaine's second point was in relation to the so-called "radical cures of hernia," which he believes ought to be termed "attempted radical cures." We are as yet a long way from being at the bottom of this matter. There is at present a sort of rage for operating on cases of hernia, mostly because of the simplicity of the operation, and the comparatively small risks. In cases with small sacs, little gut, or perhaps mostly omentum, he would not operate. There is now a current setting in the other direction, and a re-action against this promiscuous operating is taking place. He mentioned a case where it was exceedingly difficult to isolate the sac, the hernia was omental, and had probably never been entirely reduced; he found the cord, the testicle, the omentum, and the sac, one intricate, tangled mass, and was compelled to remove the whole. It was a question of moment, in this case, whether he ought to have removed the testicle without the patient's consent; all of the attending circumstances certainly justified his decision to do so. There is no fixed point at present from which we can decide whether we ought to attempt a radical cure or not. Dr. Tremaine believes that, if the patient be a person who works by his brain and not by arduous labor, and whose rupture is easily retained by a simple truss, that such a case should be left unoperated. If, however, the patient be one who does great muscular labor, and who cannot maintain his hernia within the abdomen easily by a truss, then in such a case we should attempt a radical cure. In cases of strangulation and irreducible cases, it is a question yet unsettled, whether, when operating for relief, we should attempt to get a radical cure also.

[1] [Did he remember how long ago Sir Astley Cooper practiced surgery?—Ed. REPORTER.]

In these last cases deaths do occur, and we cannot always say from what cause, either.

The patient's life is always to be the first consideration, and whatever arises, the consultant's judgment ought to prevail.

Effect of Medical Legislation in Minnesota.

The *Northwestern Lancet*, October 1, 1890, says:

The publication of "The Official Register of the Physicians of Minnesota," a book just distributed among the medical practitioners of the State, offers a good opportunity for reviewing the work of the State Medical Examining Board, whose labors now extend over a period of seven years, the first Medical Practice Act in this State having been approved in March, 1883. The effect of the Minnesota law upon the medical profession of the State is of unusual interest, for the reason that the statute now in force, that of 1887, is regarded as a model of its kind by all friends of medical legislation, a real attempt to protect the people from medical ignoramuses and charlatans, since it recognizes no diploma but requires every candidate for license to practice medicine to pass a thorough and it is believed not too rigid examination in all branches of medicine. Whether these examinations are fair tests of the fitness of candidates to practice it is open to the individual judgment of the members of the profession in the State to decide, since the papers of the examinations have frequently been published in these columns during the last two years. These papers have been a good deal criticised and have often deserved it, but at least one thing can be said, that the Examining Board has honestly endeavored to make a fair test of the fitness of the candidates who have come up before it.

One of the first points of interest in investigating the operation of the law is its effect upon the number of physicians in the State in relation to the population. As might be expected the effect has been to diminish that number, that is to reduce the proportion of physicians to population. In 1883 the ratio between physicians and inhabitants was 1 to 650; according to the register just published the ratio is 1 to 1,250. The ratio for the whole United States is 1 to 520, so that when compared to the rest of the country Minnesota appears to offer a favorable field for the physician seeking a place in which to settle. But compared with other countries the ranks of the medical profession are crowded even in Minnesota. In France there is one physician to every 2,000 people; in Austria one to 2,400; in Germany one to 3,000; in Italy one to 3,500, while in Sweden there is but one medical man to every 7,000 inhabitants.

No one can doubt that the great benefit from the law has been through its indirect effects, that is that the knowledge that the law existed has prevented many medical incompetents from trying to come to the State. The Medical Examiners have been gratified to find that the number of applicants for license increases, and with this increase in the number comes a steady rise in the average attainments of the candidates. The well-qualified physician, the graduate of a high-grade medical school, knows that he has nothing to fear from the examinations of the Board, and he is attracted to this State by the knowledge that he will not have to compete with quacks and medical pretenders. Meantime what becomes of the quack? Driven from Minnesota, Illinois and other States whose peoples are protected against imposition, he takes refuge in such States as Michigan and Massachusetts where there is no restraining medical law. Within a few years hundreds of medical charlatans have thus been driven away; not daring to appear in Minnesota in person, their only way of reaching this State is by advertisements in the newspapers, inviting the afflicted hereabouts to go to the cities of other States which they, the quacks, have made harbors of refuge. The general adoption of statutes like that of Minnesota, an event which is bound to come in the near future, will rid the country of one of its worst pests, quack doctors.

Immigrants and Skin Diseases.

In concluding an interesting paper on the skin diseases of immigrants (*Journal of Cutaneous and Genito-Urinary Diseases*, October, 1890), Dr. James C. White says:

Unless some more stringent laws are made to keep out of our country the pauper and dirty populations of Europe, the direct importation of the diseases we have been considering, and those which may arise as well from the filthy habits they bring with them and transmit to their children, must follow with increasing magnitude. If the proposed plan of the U. S. Marine-Hospital Service, to station physicians in every European port

from which immigrants embark to this country for the purpose of keeping back improper classes, be made sufficiently authoritative and restrictive it cannot fail to be of vast benefit. It is certainly as important to protect ourselves by legislation against the introduction of ignorance, filth, and disease, as against cheap labor, if we would keep our civilization upon a high plane. The Chinese have set us an example of building walls, which we might better erect against other nations than theirs.

In conclusion, I venture to suggest for the consideration of this association the propriety and importance of memorializing the National Government with regard to taking such steps as may be possible and practicable for the establishment and execution of the following measures:

1. To cleanse all immigrants of animal parasites on landing by treatment of person and clothing.

2. To retain in quarantine all immigrants with other contagious diseases, including venereal affections, a sufficient time for treatment.

3. To return to their homes all persons affected with such contagious diseases as it is impracticable to treat in such way, as leprosy, tuberculosis, and advanced syphilis.

4. To provide for efficient medical inspection at foreign ports of emigration, with the power of arresting importation of dangerous diseases to this country.

Prevention of Syphilis.

In the Section on Hygiene at the recent International Congress, an interesting and important debate took place regarding the matter of licensing houses of prostitution. Dr. Thiry, of Brussels, earnestly advocated the licensing system with sanitary inspections twice a week. Dr. Kaposi, of Vienna, took similar grounds. Dr. Thiry would not allow any prostitute to be licensed under the age of twenty, but Kaposi thought that sixteen was a sufficiently advanced age. The views advanced by the above gentlemen were opposed by several others, among them Dr. Drysdale, of London, who asserted that, according to his investigations, there was as much syphilis in Paris, where prostitution is regulated, as in London, where it is not. A vote of the Section was finally taken, and it was shown that a great majority of the members were opposed to regulation.

This is the view which in the present state of society is most in accord with justice, common-sense, and experience. Licensing and sanitary inspection tend to produce secret prostitution; and besides, such methods enforce penalties upon women but not upon men, and are therefore most unjust.—*Medical Record*, October 4, 1890.

A Hydrophobia Story.

The newspapers of October 17, report that Private Frank O'Neill, Battery C, Fourth artillery, U. S. A., stationed at Fort McPherson, died of hydrophobia at Atlanta, Ga., on October 16. O'Neill was bitten by a dog some time ago, but did not experience much trouble from the wound. Later, however, it began to trouble him, and he was compelled to go to the hospital. He then began to show signs of madness, frothed at the mouth and developed wonderful strength. He was put in a padded room in the hospital. He threw himself violently against the walls, but the padding kept him from killing himself. He positively refused to eat or drink, and it required seven strong men to hold him down. He broke loose from them once and overturned the stove, setting fire to the hospital. This was extinguished, and finally, by forcing him down, putting a mattress on him and eight men piling themselves on this, they succeeded in holding him. In this position an opiate was injected into his arm and he was quieted. In this condition he died.

[This is quite a typical hydrophobia story, probably exaggerated and somewhat distorted by the news-gatherer; but the principal features: of maniacal manifestations, violent restraint, administration of opium, and death are no doubt correctly stated.—Ed. Reporter.]

Xerostomia.

Xerostomia is an affection extending over years, hitherto observed only in elderly women, attended with cessation of the secretion of saliva. Diminution of the nasal and lachrymal secretions may also be present. In two cases reported by Dr. Seifert in the *Wiener Klinische Wochenschrift*, No. 46, 1889, of which an abstract is published in the *Deutsche Medizinal-Zeitung*, Sept. 25, 1890, the patients were elderly men. The main symptoms were an extremely distressing dryness of the mouth and fauces and of

the nasal cavities, with difficulty of deglutition and articulation. The surface of the tongue was red, fissured and dry; the mucous membrane of the mouth, fauces, and in one case of the nasal cavities, was pale, shining and transparent, without a trace of secretion. An evening dose of eight or nine drops of a solution of twelve grains of hydrochlorate of pilocarpine to the ounce of distilled water relieved the symptoms in both cases, without unpleasant secondary manifestations. Notwithstanding the administration of the drug for a long term of years, there was no dimunition in its efficacy.

Ignorance and Crime.

The Philadelphia *Ledger*, September 30, says that among the papers read before the Prison Congress was one which refuted the widely accepted theory that education, if it does not promote crime, at least does nothing to suppress or limit it. This is a conclusion sometimes drawn from prison returns, stating that seventy or more per cent. of the convicts are able to read or write, and ignores the relative number of illiterates in the whole community. When the examination is carried back of the prison returns it is found (in one case) that 95 per cent. of the community being able to read and write furnished 70 per cent. of the convicts, while only 5 per cent. of the community (the illiterates) furnished 30 per cent. of the convicts. It should be observed that many other conditions besides illiteracy combine to put the ignorant in the criminal class in undue proportion, but the statistics in so far as they show the influence of public education upon crime and criminals are favorable and not otherwise. Too much stress should not be laid upon this point, however.

NEWS.

—Dr. R. J. Levis, the well-known surgeon, died at his home, Cedarcroft, near Philadelphia, on the morning of November 12.

—It was reported on November 4, that a steamer with a thousand immigrants on board had been detained at quarantine at New York because some of the passengers had small-pox.

—A man died at the Brooklyn City Hospital, October 30, under the administration of ether for a surgical operation. It is said that only four drachms of ether had been used when the fatal result occurred.

Dr. J. E. Emerson, Detroit, Michigan, Chairman of Committee on Eligible Fellows, will forward to any applicant copies of the amended Constitution and By-Laws, Lists of Members and other information as to the Academy.

—The resignation of Dr. W. M. L. Ziegler as Instructor in Otology in the University of Pennsylvania was accepted November 4. Dr. Seneca Egbert was assigned to supply the chair of Hygiene during the vacancy in that Professorship.

—The Constitution of the American Academy of Medicine was altered at the last annual meeting, so as to admit, in addition to those possessing the degrees of A. B. and A. M., those who can present evidences of preparatory liberal education equivalent to the same.

—The result of seven years' operation of the Medical Practice Acts in Minnesota has been to reduce the ratio of physicians to population from 1 to 650 to 1 to 1,250. During the last three years 205 candidates presented themselves for examination and 77 of these were rejected.

—The Trustees of the Jefferson Medical College on November 3 postponed until December 8 the election of a Professor of Materia Medica, General Therapeutics and Hygiene (the chair lately filled by Dr. Bartholow). Eight physicians have been nominated for the vacant Professorship.

—An infant child of a man living near Rockport, South Dakota, was recently killed by a Newfoundland dog, which proceeded to devour the babe. While the animal was engaged in its work it was discovered by the mother, who fell senseless, and afterwards is reported to have become a maniac.

—A young woman died under the influence of chloroform while undergoing a slight surgical operation in a hospital in Chicago, on November 7. Her parents took her to the hospital to have a small mole removed from her right cheek. The mole was excised, but when the physician sought to revive the patient she was seized with a convulsion and expired.

—Dr. Justus E. Gregory, of Brooklyn, recently died suddenly, from the effects of chloroform, in a drug-store. Dr. Gregory had been suffering with neuralgia in the temple, and to relieve the pain was accus-

tomed to inhale chloroform, in the use of which drug he was considered an expert. He went into the store, and, saying that his eye pained him, asked for the chloroform, and sat down to inhale it. A short time later he was found dead.

—The newspapers report on November 10 that Prof. Bergmann inoculated fifteen consumptive patients on November 6 by Koch's process, and on the following day exhibited one of the patients before a number of physicians in order to show the change that had resulted within twenty-four hours. The *Børsen Courier* says it has authority for the statement that Prof. Koch's remedy has proved to be a success. A famous German surgeon, it says, cured within five days a case of lupus or necrotic tubercular destruction of the tissues of the face. The *National Zeitung* says that Prof. Koch, although he has performed a number of cures, does not yet consider the time come for the publication of his researches. Although the remedy has been applied to patients in the Charity Hospital and in some private cases, its composition remains a profound secret.

OBITUARY.

HENRY JACOB BIGELOW, M. D.

Henry Jacob Bigelow, M. D., died at his country house in Newton, Mass., on Thursday, October 30, at the age of seventy-two years. The *Boston Medical Journal* says, in its issue of November 6, that for the last few years Dr. Bigelow has been subject to gastric disturbances and attacks of hepatic colic; and for several days before his death his stomach refused to retain food. A post-mortem examination showed the presence of gall-stones, and an inflammation of the common duct, which had extended to the smaller bile-ducts, and was attended with the formation of several small abscesses of the liver. There was also a fibrous stenosis of the pylorus and a slight consequent dilatation of the stomach. The pulmonary affection which was the cause of a temporary abandonment of his medical studies in his early manhood had left its traces at the apices of his lungs.

Dr. Bigelow was born in Boston March 11, 1818. He prepared for college at the Boston Latin School, and was graduated at Harvard in 1837. He received his medical degree in 1841, and then went to Europe, where he spent three years in the further study of his profession. After his return to Boston he was, in 1845, appointed instructor in surgery in the Tremont Street Medical School. This position he held until this school was united with the Medical School of Harvard University. In 1846 he was appointed surgeon to the Massachusetts General Hospital. In 1849 he was appointed Professor of Surgery, the two chairs of Surgery and Clinical Surgery, previously held respectively by Dr. J. C. Warren and Dr. George Hayward, being united.

A few months after his appointment as surgeon to the hospital, ether was first used in the hospital amphitheatre for surgical anæsthesia. Dr. Bigelow was one of the first to see the value of the discovery, and he was specially influential in extending the use of anæsthesia in surgical operations. It was chiefly through his paper on the subject that the knowledge of the wonderful discovery was made known.

Dr. Bigelow has not been a very voluminous writer, but his contributions to surgical knowledge have completely changed surgical practice in several particulars. His interest in anæsthesia and anæsthetics has been repeatedly shown by various articles on ether, nitrous oxide and on rhigolene, a petroleum naphtha for producing anæsthesia by freezing. The famous case of Dr. Harlow's of the passage of a crowbar through the head, was made known chiefly through Dr. Bigelow's interest and study of the case. His work on *Dislocation of the Hip-Joint* has banished pulleys and rings from the clinic-rooms. His litholapaxy has revolutionized the treatment of stone in the bladder, and given rise to a literature that far exceeds in volume the united writings of its famous inventor.

Beside these claims to respect, Dr. Bigelow was acute, clear-sighted and inventive, and capable of close and severe study. As a teacher he had the power of impressing himself upon his pupils, and of leaving in their minds a sentence or a few words that contained the truth he wished to convey.

He resigned his professorship in 1882, and his connection with the Massachusetts General Hospital in 1886. During the succeeding years he has led a quiet life, for the most part at his country house, where he has taken great interest in the pursuits of a country life, and in these details he has shown the same marked individuality that characterized his surgical career.

MEDICAL AND SURGICAL REPORTER

No. 1760. PHILADELPHIA, NOVEMBER 22, 1890. VOL. LXIII.—No. 21.

CLINICAL LECTURE.

DIGITALIS IN VALVULAR DISEASE OF THE HEART.[1]

BY FREDERICK P. HENRY, M. D.,

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The patient before you, a colored man æt. about 60, when admitted a few weeks ago, presented every symptom of failing cardiac action. There was intense dyspnœa, amounting in fact to orthopnœa; the lungs were congested; the pulse was rapid, feeble and irregular, and there was general anasarca. The legs were enormously swollen; there was some ascites, and over the sternum the finger on pressure seemed to bury itself in the waterlogged tissues. Another most significant fact was that the urine was greatly diminished, amounting at the time of admission and for a day or two thereafter, to about fifteen ounces per diem. The cause of the alarming symptoms to which I have just referred is plainly evident. On examining the heart I found a distinct blowing murmur, synchronous with the first sound, and heard with greatest intensity over the apex beat, which is somewhat outside of and below the usual situation. This same murmur may also be heard in the left axillary region as far back as the anterior border of the latissimus dorsi muscle. The three cardinal points of this murmur and, in fact of all murmurs, viz., the time of its occurrence, the area of its greatest intensity, and the direction of its transmission indicate unmistakably a condition of mitral insufficiency. At each ventricular systole a certain amount of blood regurgitates into the left auricle, and as a matter of course interferes with the pulmonary circulation. Such backward pressure is more serious in the pulmonary than in the general circulation, because the veins of the former are destitute of valves and pursue an unusually straight course.

In the case before us the symptoms of failing cardiac action arose suddenly, although the lesion on which they depend is an old one. In other words, they represent an acute exacerbation of a chronic ailment. In every acute affection which you are called upon to treat, you should endeavor to ascertain whether the disease has originated *de novo* or has for its foundation some organic defect. You can readily understand without my giving you any special examples, how the prognosis of permanent recovery will vary in accordance with the result of such examination.

Compensation in this case was well maintained until a certain day, a few weeks ago, on which the man was employed in cleaning out a cold, damp cellar. It was worse than damp, for he tells us that while engaged in this work, he was standing in cold water. Immediately after this exposure the symptoms above mentioned made their appearance and had their origin in the circulatory point of least resistance, *i. e.*, the pulmonary vessels, which were already in a state of chronic congestion. There was nothing inflammatory in the nature of this attack, as is proved by the temperature, which has been, as you may see by this chart, persistently subnormal. The prolonged impression of cold upon the cutaneous vessels—in a word, the chill—was enough to give the balance of circulatory power to the veins. There is a certain physiological antagonism between the arterial and venous systems, the maintenance of which is essential to a perfect circulation. The tendency of every variety of valvular heart disease is to destroy this antagonism and the object of treatment is to restore it. In

[1] Delivered at the Philadelphia Hospital, Nov. 12, 1890.

the case before us this antagonism was lost: the arteries had given up the struggle; their tension was relaxed; in short, the whole circulation was of a venous type. This was indicated especially by the subnormal temperature, the scanty secretion of urine, and finally by the general anasarca. The object of treatment was to strengthen the heart, and at the same time to increase the arterial tension. This has been most successfully accomplished by a drug—digitalis—which, except in rare instances of unusual susceptibility or idiosyncrasy, is still *facile princeps* among cardiac tonics. There are certain facts concerning this drug and its indications to which I will refer in connection with this case in which its employment has been so successful. Useful therapeutic hints may be obtained by looking a little more closely into its clinical history. In the first place I would lay special emphasis on the fact that the signs of failing compensation appeared suddenly, and were manifestly due to exposure to cold and wet. Up to the time of such exposure, the circulation was well maintained: decidedly better than it now is under the influence of digitalis. These two facts, viz., the sudden onset of pulmonary congestion and general anasarca, as well as the prompt improvement under treatment, prove beyond doubt that there is a great deal of healthy muscular fibre in this man's heart. If there were not, digitalis would be of little or no use, for it can no more act in the absence of muscular fibre than can an electric current traverse a divided nerve. The first requisite then to the successful employment of digitalis, is the presence of more or less healthy muscular fibre. Is there any method by which we can judge of the degree to which degeneration of cardiac muscular fibre has advanced? We are justified in referring the presence of considerable healthy fibre if the first sound is, as in health, *relatively* louder, deeper toned, and more prolonged than the second, and if the apex beat, instead of being diffuse and fluttering, is sharply defined and plainly palpable. Again, a distinct murmur can only be produced by a heart acting with considerable force, so that a faint murmur coinciding with signs of failing compensation is of more serious import than a distinct one. The response to appropriate treatment is, however, the best of all tests of the condition of the cardiac muscle.

Another indication for the employment of digitalis which was distinctly present in this case, is weakness and irregularity of the pulse. Withering, who wrote a treatise on digitalis towards the close of the last century, and who probably did more than any one else to bring the drug into judicious use, had the sagacity to perceive that it is much more efficacious when the pulse is feeble and intermittent than when it is hard and regular. Although the phrases "high and low arterial tension" were not then invented, the treatment of this keen observer was just as skilful as though they were.

The next question we have to consider is: whether the success which followed the use of digitalis in this case was due to the nature of the lesion, or, to express it in more general terms, whether the indications for the employment of digitalis in cardiac disease depend upon the valve affected and the nature of the circulatory disturbance to which it gives rise. This question has given rise to a great deal of profitless discussion, owing to the fact that most of the so-called observers have approached their cases of heart disease with preconceived opinions derived from authoritative teachers. For example, Grisolle, one of the most distinguished physicians of his time, declared digitalis to be not only useless but injurious in all such cardiac valvular lesions as give rise to stenosis. In 1867, Selion,[1] in his inaugural thesis, expresses an opinion exactly the reverse, for he says that digitalis is indicated in stenosis of the valvular orifices; contra-indicated in those which give rise to insufficiency.

In 1877 Milner Fothergill adopts the same view so far as aortic stenosis is concerned. Digitalis, says Fothergill,[2] is "useful in aortic stenosis. By exciting a more powerful ventricular contraction it enables a larger amount of blood to be driven through a narrowed orifice in an equal time, thus establishing a new equilibrium."

Niemeyer, on the other hand, held that digitalis was, as a rule, contra-indicated in aortic stenosis, and advised that in this form of heart lesion it should only be employed in cases in which compensation is failing or the action of the heart is so rapid as to prevent the proper discharge of the contents of the left ventricle.

The same differences of opinion have prevailed with reference to the use of digitalis

[1] Quoted by Huchard.
[2] *British Medical Journal*, Oct. 13, 1877.

in lesions of the mitral orifice. Niemeyer advised its use in mitral stenosis, on the ground that by slowing the action of the heart it gave the left auricle more time in which to discharge its contents into the left ventricle. On the other hand, Potain maintained that it was in just these cases of mitral stenosis that digitalis could be most easily dispensed with.

Gubler, a well-known French authority, held that both in mitral insufficiency and stenosis, little benefit was to be derived from digitalis.

These are but a tithe of the contradictory statements with reference to the best cardiac tonic in the Pharmacopœia. Can they be reconciled, and, if so, in what manner? Certainly not by endeavoring to impeach the testimony of the distinguished men I have quoted. They are all partly right, and therefore none of them entirely wrong. The cause of their discrepant statements concerning the action of digitalis is to be found in the stage of the disease in which they employed it. In the same case of valvular heart disease, digitalis may be found decidedly injurious in one stage, useless in another, and decidedly beneficial in the third. With reference to the action of digitalis, cardiac valvular disease has been divided into three stages: 1. Eusystole. 2. Hypersystole. 3. Hyposystole. In the first, compensation is fully made for the valvular defect. There is no dyspnœa except in decided exertion; no palpitation; no cough; no œdema, or any other sign of venous stasis. In such a case digitalis is not indicated; it is absolutely useless and might be injurious. The only treatment to be advised is of a strictly hygienic nature.

At a later stage of the same case the symptoms will have undergone a very decided change. The heart has enlarged; there is a tendency to active congestion, manifested by fulness in the head, cephalalgia, tinnitus aurium, vertigo and insomnia. The impulse of the heart is powerful and outside of and below its normal situation, while the pulse is full and resistant. Under such circumstances as these, digitalis is decidedly injurious, and since this stage is more pronounced in cases of aortic disease, especially aortic regurgitation, the hasty inference has been made that digitalis is injurious in all cases and stages of aortic lesion. The bromides, morphia and aconite are the drugs for this stage of valvular disease, but the most important rôle is still to be assigned to hygiene. A bland diet, of which the only animal ingredients are milk and eggs, should be prescribed, and a rigid abstinence from alcoholic liquors, tea, coffee and tobacco, enforced. The stage just described is the stage of *hypersystole.*

The stage of *hyposystole* may be said to begin when there is dyspnœa on slight exertion or even in ordinary conversation, œdema about the ankles, at first only observed at night on retiring, and a scanty secretion of urine. There will also be failure of appetite and other signs of digestive disturbance due to disordered circulation of the gastro-intestinal tract. In fact digestive disorders are so frequently prominent that cardiac dyspepsia is a well-recognized morbid condition. These symptoms coincide with diminished arterial tension; perhaps also with feebleness, irregularity and intermittence of the pulse. It is in this stage of heart disease that digitalis is employed with the most brilliant results; and as this stage may be reached in any case of heart disease, irrespective of the valve affected, it follows that the true indications for this drug are found rather in the symptoms of cardiac affections than in their physical signs.

It is undoubtedly the case that certain valvular affections are, as a rule, more benign in their course than others, and may last for years without giving rise to any symptoms, the patient finally dying of some intercurrent affection. The indications for digitalis in such cases may never arise unless, as in the case before us, exposure to cold and wet, or other depressing causes, may induce a state of acute cardiac insufficiency. The facts above mentioned afford the only satisfactory explanation of the discrepant statements with reference to the employment of digitalis in heart disease.

I trust I have made it plain that the indications for digitalis are to be found only in the functional capacity of the cardiac muscle. When it is working regularly and overcoming the valvular obstruction without exhausting the reserve force inherent in every heart, digitalis is useless and may be injurious. When the heart is excited in its action; that is, when it is making superfluous efforts to overcome the obstruction, provided this coincides with increased arterial tension, digitalis is decidedly injurious. When the arterial tension is low, and the whole circulation is approaching a venous type, digitalis is decidedly beneficial. These statements apply to all cases of heart disease,

irrespective of the particular valve or valves involved.

On prescribing digitalis in a given case and obtaining no immediate benefit from it, you should not hastily conclude that it is worthless. Although the fact is denied by some, there can, I think, be no doubt that the action of this drug is cumulative. In the case before us the daily urinary secretion on admission was fifteen ounces, and it was not until digitalis had been administered for a considerable period—about forty-eight hours—that the urine was greatly increased in amount. At the end of the period referred to, it reached the high figure of 125 ounces.

There are certain effects of digitalis which are often attributed by the inexperienced to the disease for which it is prescribed. For example, while slowing and strengthening the pulse, it often makes it very unstable, so much so that the least excitement will cause it to increase in frequency at the rate of from twenty to thirty beats per minute. The same result is produced by slight muscular exertion, such as turning over in bed. For these reasons the best results from digitalis are obtained by keeping the patient at rest while he is taking it. When the circulatory equilibrium is thoroughly restored by the use of this drug, the patient may be allowed to rise, and take a proper amount and kind of exercise.

In cardiac disease, especially when the patient is taking digitalis, the physician should never neglect to compare the number of the pulse beats with those of the heart. Cases are now and then met with in which the number of the cardiac pulsations is greater than the number of pulsations in the radial artery. This is due to the fact that some of the cardiac contractions are abortive, or if not entirely so, are too feeble to cause a palpable pulse at the wrist. The number of the heart beats may be exactly double those of the radial artery; and, according to some authorities, this is due to an asynchronous contraction of the two sides of the heart. I have published a case[1] in which, in my opinion, this condition undoubtedly existed. The possibility of the right and left ventricles acting independently of each other has been denied, and when we consider the manner in which the spiral, circular and other muscular fibres, pass from one ventricle over another without any tendinous septa, or other lines of demarcation, it seems difficult to understand how this can occur. However, in the case to which I refer, the sphygmograph recorded two beats of the heart to one of the radial pulse, and the relation of the curves representing the double heart-beats was, in point of volume, just what one would expect from the relative muscular force of the two ventricles.

I mention these peculiarities of cardiac action because they have been attributed to the action of digitalis. The question whether or not they are to be ascribed to this drug, is, in my opinion, an open one. There is one form of cardiac action which is generally agreed to be due to digitalis, and to which reference must be made, lest on observing it you should attribute it solely to the disease. It is a species of regular irregularity manifested by what has been called the "pulsus bigeminus;" that is to say, there will be two rapid beats of the pulse separated by a long interval, and this may continue for hours.

There are many other interesting points concerning the employment of digitalis in heart disease to which reference may be made in subsequent clinics.

[1] *Archives of Medicine*, August, 1881.

COMMUNICATIONS.

A NEW POISON IN CHEESE.

BY VICTOR C. VAUGHAN, M. D.

During the past two or three years we have received at the Hygienic Laboratory of Michigan University a number of samples of cheese which, it was claimed, had caused nausea and vomiting in those eating of them, and in which we were unable to detect tyrotoxicon. Some of these samples produced vomiting and purging in cats and dogs to which the cheese was fed directly. Of course, the evidence that these samples had been the actual cause of the sickness among the people who had eaten of them was confirmed by the experiments upon the animals; but inasmuch as we were unable to detect the poison, we were compelled to report as follows.

"The poisonous character of the cheese has been proven by experiments upon animals, but we have failed to demonstrate the nature of the poison. Tyrotoxicon could not be detected."

One sample of this class was found by my assistant, Dr. Novy, to be very poisonous. Some of this cheese was covered with absolute alcohol, and after standing in a dish for some weeks the alcohol was allowed to evaporate, then 100 grams of the cheese was fed to a young dog and caused its death within a few hours. Sterilized milk to which a small bit of the cheese was added, after standing in the incubator at 35° C. for twenty-four hours, became so poisonous that 100 c. c. of it introduced into the stomach of a full-grown cat caused death. Dr. Novy made plate cultures from the cheese and from the spleen and liver of the dead animals, and succeeded in identifying one germ as common to both. Sterilized milk inoculated with a pure culture of this germ, and kept in the incubator, proved fatal to cats. But with the advent of cold weather the germ lost its toxicogenic properties, which were not restored by subsequent cultivation in the incubator.

In a second class of samples, the poisonous character of the cheese was not confirmed by direct feeding. Cats, rats and dogs were fed with the same quantities as above, without any appreciable effect. The report made upon the samples was as follows.

"Animals fed upon the cheese were not affected. Tyrotoxicon could not be found. The sickness in the people was probably due to some other cause."

The last sentence of this report was probably wrong, as will be shown from the following experiment. Two kilograms of a cheese of this class was extracted repeatedly with absolute alcohol. The part insoluble in alcohol was then extracted with water. The aqueous extract, after filtration, was allowed to fall slowly into three times its volume of absolute alcohol. A voluminous, flocculent precipitate resulted. After twenty-four hours the supernatant fluid was decanted, and the precipitate was dissolved in water and re-precipitated with absolute alcohol; then it was collected and speedily dried on porous plates. A small bit of this precipitate was dissolved in water; and forty drops of this solution, injected under the skin on the back of cats, produced invariably within one hour vomiting and purging. After the partial collapse which followed the vomiting and purging, and which was evidenced by the animal sitting with its chin resting on the floor, recovery gradually followed. The same amount of the solution injected into the abdominal cavity of white rats rendered the animals within ten or fifteen minutes perfectly limp, and the only evidence of life observed was rapid respiratory movements. The rats lay upon their sides, and could be handled without manifesting any attempt at movement. In this condition some died after three or four hours, while others, after lying in this position for from eighteen to twenty-four hours, gradually improved, and after some days seemed to be wholly recovered.

This substance belongs to the so-called poisonous albumins. From its aqueous solutions it is not precipitated by heat or nitric acid, singly or combined. Its solutions respond to the biuret test. It is not precipitated by saturation with sodium sulphate, nor by a current of carbonic acid gas; therefore, it is not a globulin. It is precipitated by saturation with ammonium sulphate; and this fact removes it from the peptones.

That animals were not affected when fed with the whole cheese may be explained by the supposition that they did not in this manner get enough of the poison to affect them. It cannot be said positively that the samples of cheese of the first class mentioned above owe their poisonous properties to this substance. We have not had the opportunity of testing samples of this class since the recognition of the poisonous albumin in those of the second class. Four samples of the latter have been tested for the poisonous albumin with positive results.

It may be found that traces of this poison exist in all samples of green cheese. This point will be investigated.

It is highly probable that the poisonous effects of some samples of sausage and meat are due to similar products of bacterial activity.

FRACTURE THROUGH THE ANATOMICAL NECK OF BOTH HUMERI.

BY WM. C. TODD, M. D.,
ROXBOROUGH, PHILADELPHIA.

I am induced to report the following case from the extreme rarity of such an injury. I was called in consultation by Dr. S. C. Ingraham, of Wissahickon, in the case of a woman of advanced years, who had had a fall down a cellar stairway, by which both

shoulders were severely injured. The arms were rendered useless, there was severe pain in the region of both shoulder-joints, with some swelling but no apparent shortening or displacement. Distinct crepitus at both joints could be plainly felt on grasping the joint tightly with one hand and making slight movement of the arm with the other. Both arms were carefully bandaged from the fingers up; well-padded metallic splints were fitted to the upper part of the humerus and shoulder, and secured by bandages; flat pads were placed in the axillæ; and the arms were secured to the sides from the shoulders to the elbows, with slings to support the hands and forearms.

The bandages were changed once a week, when the parts were carefully bathed and dried, and precautions were taken to prevent chafing. At first the patient was confined to bed on her back, but afterwards, in the daytime, she used an easy, reclining chair. In six weeks the splints and bandages were removed, and it was found (contrary to our expectation) that union had taken place with fair motion, which we expect to improve in time. Some thickening remains around the heads of the bones, which may possibly be absorbed. The arms were again placed in slings, with directions to gradually resume their use.

There may have been some predisposing cause in this case; but none was apparent, except the age of the patient, who had never suffered before from fracture.

THE DISEASE OF INEBRIETY.

BY T. D. CROTHERS, M. D.,

SUPERINTENDENT WALNUT LODGE HOSPITAL, HARTFORD, CONN.

It is a curious fact that, notwithstanding all the clinical evidence so easily obtained in the practice of every physician, the disease of inebriety is still denied and doubted by many persons. This is natural in a certain class of physicians, who are always averse to any change of present theories and beliefs, because it requires mental changes and efforts to readjust themselves to new states and conditions. But the medical man who is reckless enough to defend his views in print always reflects his own knowledge of the subject more than the opinions of others. Recently such a man considered it his duty to contradict the fact of disease in inebriety, and to show its absurdity and its conflict with the teachings of the Bible and other experience, citing as authority (which seemed to him conclusive) the opinions of the late Dr. Gray, of Utica, and Dr. Bucknil, of London. Feeling that he had fully established his view of the topic, he gave way to sarcastic strictures upon me and others engaged in the same work, and finally closed with a record of two cases, which to him seemed conclusive. One of these cases came under my care, and thus enabled me to compare the evidence on which he based his denial of the disease of inebriety.

The history of the case, as he described it, was briefly as follows. A. B., a merchant, thirty-four years old, had drank to excess for ten years, had lost his property and was a pauper living on the charities of his friends. He had Christian parents and excellent training, and had been successful in business. He had begun to drink wilfully at first, and continued, notwithstanding all advice and persuasions of his friends. He would promise and pledge himself to abstain, then deliberately plan and determine a drink period, and in the most cunning way deceive his friends. When prevented from going away, or when restrained by the presence of some one, he would abstain for a time; but with the first favorable opportunity he would drink to great excess. The insane-like cunning and methods to procure spirits, while apparently deploring his condition and affirming that he would stop, but making no effort to do so, was proof of vice and immorality, and in no possible way could it be called disease.

A more careful examination showed that A. B.'s grandfather was a periodical inebriate, that one uncle was insane, and that his father suffered from attacks of melancholy at intervals, and his mother was a pronounced neurotic. From early life the patient had periods of insomnia and was always untruthful and unable to concentrate his mind on one thing long. He probably drank at first to keep up in business, and afterwards drank according to time and opportunity. He inherited a neurotic diathesis and a special tendency to exhaustion, for which alcohol was a most grateful means of relief. He was also of defective brain organization and was unstable, emotional and childish in his methods of deception. He would agree to any theory that explained his conduct and join in any methods and plans

for his relief, and at the same time carry on an intrigue to procure and use spirits. On one occasion he partook of the sacrament, as a most devout convert, and that night broke into the church and stole the wine that remained and drank it in his room. He was clearly a reasoning maniac of the alcoholic type and died of some unknown brain trouble.

The second example used to illustrate the vice of inebriety was a solitary midnight drinker of the dipsomania type, who at intervals retired to some obscure hotel or boarding-house, and drank to stupor at night for a week, then returned and manifested great activity in the temperance cause. At other times he would refuse to see any one in his room at night for days, then come out, giving as an excuse that he was engaged on some literary work. This man was found dead in his room, with many empty spirit bottles about him.

The inebriate, like the insane, always denies that his habit is the result of disease, and insists that he can stop at any time, and when he fails to do so ascribes the failure to some trifling condition of the surroundings. To many superficial observers the statements of such persons are accepted as facts, no matter how much they are contradicted by clinical history. In a noted contested will case, the testator was an extreme prohibitionist and a radical temperance man. He denounced every scientific effort to study these cases as fallacious and mercenary; and yet he was an inebriate and drank in secret. When the drink craze came on he had urgent business in New York city, and would be away a week or more concealed. After one of these unexplained absences, he wrote his will, which was contested, and the fact of his secret drinking came out. A review of his history revealed many very clear indications of disease, in his intemperate life and conduct. He had been implicated in several very unusual transactions, and at times was extremely miserly, or lavishly generous. He often displayed great extremes of conduct and character, and had been under treatment for years for nervous dyspepsia. At one time he was under arrest for setting fire to a saloon. As he was very bitter and vindictive against any one who drank, or sustained the saloon influence, no doubt he was guilty. His mental soundness was certainly questionable for many years, and the will was written after an attack of secret drinking, when his mind was more than usually disturbed; yet the will was sustained.

In a recent case, the disease of inebriety appeared, although it was not recognized, and it has been the subject of much comment. A quiet, studious physician, who was very generous and popular with all his patrons and associates, served one term as a legislator. From this time a total change of character and disposition began. Before this he was an occasional moderate user of spirits, now he drank to excess at intervals, was slanderous, untruthful, intriguing, and irritable. For a period of ten years up to his death, he was a centre of contention, and often committed the most disreputable acts. He was a low politician, and drank to excess at times. At his death, the executors refused to pay certain unusual contracts, on the ground that at the time the contract was made, he was unsound and incapable. The evidence of disease, from the sudden change of his conduct, character and disposition, associated with the excessive use of spirits, was not recognized by the court and jury, and the expert witnesses for the defense were treated as dishonest and culpable, for assuming that such a man was not sound and responsible.

It is difficult to understand on what basis the disease of inebriety is doubted, in the increasing army of cases in which spirits are used constantly, or to great excess at intervals, associated with marked changes of character and conduct. Any other interpretation of these groups of symptoms than that of brain failure and degeneration seems nonsense. The best authorities all agree, that the life and functions of the highest cerebral centres are always disordered by interruption in their natural nutrition. If the blood is impoverished, or poisoned by any deleterious substances, the effects are visible in all the brain functions. No one can use spirits continuously or in excess without breaking up the normal qualities of the blood and impoverishing the brain. No man can use spirits to excess and have a healthy, sound brain; and changed conduct and character are unmistakable symptoms of this. The facts in this field are within the observation of every physician, and are not theories but can be demonstrated beyond all doubt or question.

What is most needed is clinical study and medical observation of these cases above all moral theories, or present conceptions of what inebriety is or is not.

TREATMENT OF SCIATICA WITH PHOSPHORUS.

BY A. K. BELL, M. D.,
MADISON, GA.

One of the most unpleasant feelings an honest doctor can experience, is created when he sees his patients continue to suffer pain while he is unable to give them the desired relief. Such is often the case when one treats sciatica; but I have now treated three severe cases with such marked relief that I have no hesitancy in recommending to my fellow-practitioners the elixir of phosphorus, which has served me so well.

Case 1. A negro man about forty years old, who had always been quite well, began to suffer. The pain came on gradually, beginning in the gluteal region, and running down the posterior portion of the leg. In two or three weeks from the first symptoms he was so much crippled that he was compelled to go to bed. He had been treated about one month by two physicians before I saw him. In two weeks of treatment I gave him many things, including morphia and atropia combined and separate, with the result of only a few hours of relief. After the effects wore off he would suffer as intense pain as before. After about two weeks of such treatment I gave him elixir of phosphorus. In a few days after the beginning of this treatment he rested better at night from pain, and in one more week he was dismissed as cured. One year afterwards he had another attack which yielded at once to the treatment with phosphorus alone.

Case 2. A white woman, forty-two years old, suffered three months with severe pain from the gluteal region down the posterior portion of the leg. She was under treatment all the time, and all the remedies common to the cure of sciatica were used; but her only relief from pain was gained by using morphia. I was called to see her, and at once ordered the elixir of phosphorus, using nothing else. In one week the woman began to improve, and in another week she was dismissed. She is my next door neighbor, and I have not heard of her complaining since.

Case 3. A mulatto woman, about forty years old, began to suffer similar to the others one year ago. She was confined to the bed and had been under treatment for six weeks; had taken no anodyne, and had suffered intense pain all the time. When I first saw her, she could not turn herself in bed. I gave her morphia and atrophia combined, to relieve the pain. She was very anemic and emaciated. I ordered tartrate of iron and potash for one week, when she gained color and strength. Then I gave the phosphorus, and in two weeks she was up and walking about.

I cannot believe these are *post hoc*, but *propter hoc* cases. I hope others will try this preparation, and should they or should they not have the same good results as I, I would be glad to hear from them.

FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

BERLIN, October 11, 1890.

The Royal Friedrich-Wilhelm University.—The Royal Military Medical Institute.—The City's Provisions for Accidents and Fires.—Influenza Statistics in the Prussian Army.—Treatment of Delirium Tremens.—Syphilis in the Horse.—A Boom for Emphysematous Patients.—A Button Lodged in the Nose Three and One-half Years.—Spermine.

The first question usually asked by an American visiting Germany to perfect his scientific education, is: "Where is the University?" Imagine his surprise when he finds, even in a world-renowned university-town like Gœttingen, that this question cannot be answered without great difficulty, if at all. The fact is that there usually exists no imposing array of connected structures forming the University, as is the case in America, but that the German Alma Mater is made up of a half a dozen or more "Institutes," scattered all over town, which in their entity represent the University. And frequently these institutes, especially those of recent date, such as the Hygienic and Bacteriological Institutes, are magnificent structures, while the central university building is often insignificant. This is signally the case in Berlin. The University Unter den Linden, *vis-à-vis* the palace of the late Kaiser Wilhelm, is an unworthy exponent of its fame and honor. It may be interesting to learn of some of its history. It was in the year 1807, the battle of Jena had just been lost and the Prussian kingdom was

practically extinguished by the terrific blows of the Corsican usurper. But the high-minded Prussian king, Frederick William III (the father of old Emperor William), far from believing in the permanent decline of the star of the Hohenzollerns, was first to regain heart, and publicly declared: "We have lost our material possessions, so we must try to strengthen and concentrate our spiritual ones; and, in this sense, I order the founding of the University of Berlin." Six years later the noble king had the satisfaction to reap the fruits of his seed. The yoke of the French tyrant was thrown off through the incessant stimulation of Prussia's youth by men like Roerner, Arndt, Jahn and Fichte, who taught at the new University. You know well what the University of Berlin represents in our day. Allow me to quote just a few names of the Medical Department: Graefe, Traube, Frerichs, Langenbeck, Schroeder are no more, but Virchow, Koch, Hoffmann, Helmholz, Dubois-Raymond, Liebreich, Leyden, Gerhardt, Henoch and Bergmann still grace the faculty, under whose auspices a most successful International Congress has just been held.

The great Central Institute where the medical student receives his entire clinical education, the Royal Charité, does by no means come up to the requisites of the day. The lecture rooms of Gerhardt and Henoch, which are frequently attended by 300 students, hold comfortably about one-third of that number, and late comers are happy enough to catch a word here and there, not to speak of seeing teacher or patient. The Institutes devoted to Physiology, Pharmacy, Chemistry, Anatomy and the Surgical and Gynecological Hospitals are magnificent new structures, while those of Hygiene, Pathology and particularly Chemistry are confined to miserable quarters. The height of shabbiness, however, is undoubtedly reached by the University Unter den Linden. You enter by the main gate and find yourselves immediately surrounded by impenetrable darkness. Long, but exceedingly narrow corridors lead from one wing to another. The walls are covered with bills, official and other ones, but the miserable light shed by the parsimonous lamps—old Sol has never matriculated at the Berlin University—forbids their perusal even to such students as should accidentally be free from myopia. The rooms are ridiculously small and primitive, the auditorium maximum on the second floor being the only room reminding you of the august character of the institution. The most ludicrous thing belonging to the University is its big clock. It hangs freely in the front hallway and between the two main entrances which oppose each other. But only those entering by one gate are blessed by reading off its time, the students who come in the other way see merely a circular piece of pasteboard. But old and rickety as the building is, which was originally a mansion occupied by Prince Ferdinand, of Prussia, it has many good things attached to it. In the first place its lovely location, Unter den Linden, where all that lends life and soul to Berlin—royalty, soldiers and the upper ten thousand—are ever visible. At one o'clock the ever-fascinating event known as "guard-mount" takes place. A company of a daily-changing regiment parades with the full band of the Regiment the Linden and relieves under various interesting military manœuvres, the company doing duty on the guard-house, just adjoining the University. The scene is never missed by the students and the big building becomes vacated when the roll of the drum and sound of the fife announce the soldiers' approach. A lovely garden surrounds the institution on either side, a part of which contains rare medicinal trees and plants, all clearly labelled for the use and instruction of the students. A "Reading Hall" is also located in the garden, and the Royal and University Libraries are in the immediate neighborhood. As an oddity I will mention that an old privilege of the University allows its janitor to keep and sell beer, which he does of course, but no case of intoxication has ever been reported.

In some future letter I shall speak in detail of the various Institutes of the University, and will now only mention a few points in regard to the Military Medical Institute.

The Government in Germany provides well for the sons of officers and military surgeons. The former are placed in the "House of Cadets" and are educated as officers, while the latter are placed in the Military Medical Academy, which provides the entire army with surgeons. All assistants of the Charité are taken from the Military Medical Academy, a fact which is causing a good deal of dissatisfaction among the rest of medical men. But as the Charité is a Royal Institution grumbling is of no avail.

As far as official or municipal help in accidents is concerned, there is no large city

on the globe worse provided for than Berlin. A Hospital Ambulance Service, such as is doing excellent work in America, is unknown here. A few accidents happening here of late have at last opened the eyes of the community. Several fires broke out at night, and as a result a number of persons perished who, if medical aid had been sooner obtainable, might have been saved. I will say a word too about the Berlin Fire Company. According to its own estimate the "Berliner Feuerwehr" is an unrivaled institution; but according to my judgment it is far inferior to the fire companies in New York, Philadelphia and all other large towns in America. You never know whether they are returning from a fire or hurrying to one, for they proceed with a never varying slowness. Besides, as became evident in the recent accidents mentioned, the single men are machines only and are not allowed to follow their own and often fortunate ideas. They are drilled as soldiers and consequently are poor mediums for saving human life. True, Germany consists of soldiers only, everything else is of secondary importance.

The statistics of the Military Medical authorities on the great epidemic of influenza, just published, present many points of interest chiefly from the etiological point of view.

The observations made in the German army pertain to 55,263 cases. In many instances the infection could be traced directly. For example, the garrison of Pasewalk, a town located near Berlin, had remained free from the affection until a captain of a Berlin regiment was ordered to do duty in Pasewalk. The captain was the first victim of influenza, next in order came the military surgeon who treated him, then a sergeant whom the captain had ordered to report, next came wife and children of the surgeon, and a friend of the captain. In a few days the entire town had the influenza. In 254 cases persisting neuralgia, and in 290 cases inflammation of the middle ear was found. Sixty cases terminated fatally.

At the recent meeting of German Naturalists and Physicians, held at Bremen, Dr. Aufrecht, the well-known clinician of the Magdeburg City Hospital, discussed the treatment of delirium tremens. Two main questions, he said, come up for consideration, viz.: Have we a sovereign remedy for delirium tremens? and, does the patient need alcohol during the treatment? Aufrecht declared that he had never obtained beneficial results from the use of opium and morphine, and that he relied exclusively on hydrate of chloral. He usually prescribes in the evening a drachm of the drug to be taken in half an ounce of simple syrup and syrup of orange peel each. Later on the dose can be increased. In all uncomplicated cases, alcohol cannot be dispensed with. He gives usually daily half a pint of Hungarian wine or the following potion:

℞ Alcoholis (90 per cent.) . . . . . f℥ii
Syr. simpl. . . . . f℥ii
Tr. aromaticæ
Tr. amaræ . . . . . aa gtt xv
Ag. amygd. amaræ . . . . . f℥ss
Aq. destillat. . . . . f℥viii
M. S. Tablespoonful every 3 hours.

Aufrecht has treated in all 294 simple cases. Ten patients died (four of these received half a drachm of alcohol and one-third grain morphine every night. Of 124 cases treated with hydrate of chloral not a single one was lost. Dr. Noele, of Osnabrueck, on the other hand, was opposed to the exhibition of hydrate of chloral or alcohol, and emphasized the gratifying results he had obtained from warm baths extending over fifteen minutes and followed by the cold douche.

Recent experiments made by Dr. Lesin to ascertain whether syphilis can be communicated to a horse, have been clearly successful. The horse bore the injections and inoculations with syphilitic substance exceedingly well, and on dissection showed numerous proofs of syphilitic infection, such as swelling of the lymphatic glands and plaques near the semilunar valves of the aorta and in the pulmonary artery. .

Dr. Steinhoff, of Berlin, has just completed an apparatus which appears of great value to emphysematous patients. The exceedingly costly Pneumatic Cabinet, though valuable in the treatment of the catarrhal symptoms of emphysematous patients, has nevertheless proved useless in the treatment of the disease itself. Prof. Gerhardt, of the Berlin University, has first called attention to the high value of manual pressure upon the thorax on expiration. Unfortunately no one, neither patient nor nurse, can keep up such pressure for longer than fifteen minutes. An emphysematous mechanic by the name of Zoberlin perfected some time ago —under guidance of Prof. Rossbach — a chair which assists the patient in compressing his own thorax. But as emphysematous

patients are easily tired and abhor continuous exercise, Zoberlin's ingenious apparatus could not universally be utilized. The invention of Dr. Steinhoff is a "respiratory belt" filled with compressed air, which is made to compress the thorax on expiration. A desk-like piece of furniture contains the various accumulators, a small dynamo or gas motor doing the work. In seven cases the belt brought relief.

Berlin surgeons extracted recently from the nose of a girl, seven years of age, a button which had lodged in that part for 3½ years. The chief symptoms produced by the foreign body were chronic coryza, snoring breathing, dyspnœa and nasal speech, all of which receded promptly after extraction of the button.

As the testicle emulsion used by Prof. Brown-Séquard does not exclude the possibility of septic infection, various observers have recently aimed at isolating the active principle of the alleged invigorating substance contained in that organ. Prof. Roehl appears first to have been successful in this attempt. He has prepared the substance from the testicles and prostatic gland of young, healthy oxen and stallions. Spermine—that is the name of the active principle in question—is precipitated by chloride of gold, and on treatment with metallic magnesium gives off the odor of fresh human sperma. Dr. Roschtschinin, private physician to the Russian Emperor, extols the invigorating and almost marvellous power of the remedy in asthma, paralysis of the extremities, diabetes, delirium tremens and tuberculosis. He uses spermine in a one or two per cent. sterilized solution, of which he administers one syringeful subcutaneously. The solution is kept in glass tubes, and the syringe is to be cleaned before use with concentrated carbolic acid. Spermine contains about eighteen per cent. of peptone.

PERISCOPE.

Simple Method for Controlling Epistaxis.

Dr. W. W. Parker, of Richmond, Va., says, in the New York *Medical Record*, October 4, 1890: The plan of arresting hemorrhage from the nose, which I here describe, I have used for thirty years without one failure. When I first began to practice I used Bellocq's instrument, but I found it painful, and, in small children, exceedingly troublesome of application. Two months ago a man twenty-three years old, in this city, was operated upon for irregular septum (a small part of the bone was removed), which was followed by troublesome hemorrhage. The operation was by a very skilful specialist, who, upon application of the patient the day after the operation, plugged the posterior nares with difficulty. But the hemorrhage persisted for three days, when the patient, whose father's family I had attended for many years, applied to me in company with his father. I, of course, declined to have anything to do with the case, and urged him to return at once to the specialist who could do everything that was necessary. This he postively refused to do, and said if I would not attend him he would get some one else. He had visited the doctor three times, but the bleeding continued. As it was ten o'clock at night when he came to my office, I told him I would stop the bleeding and would see his doctor next morning and get him to call at the patient's house. This I did. I stopped the bleeding at once, but kept the patient and his father in my office till twelve o'clock at night to see if the hemorrhage really was arrested. This was the last of the bleeding. This man was of a hemorrhagic diathesis, and some three weeks after this, he had hemorrhages from the lungs, which has continued occasionally up to this date. At the Red Sulphur Springs of Virginia he gained twenty pounds but the bleeding from the lungs continued. He is of a phthisical family. I have been thus particular so that I might satisfy the reader that this was a bad case of epistaxis.

My plan is not only effectual, but is easy of application and absolutely painless, and can be probed in the smallest patients. The little device which I use is made of fifteen of the long threads of patent lint, size three and one-half or four inches long, which I double on themselves and tie in the middle, and let one end of the string be six or eight inches long so as to pull the plug out when necessary. When doubled on itself it looks like a "comet" in miniature with a nucleus and thirty tails (or twice the number of threads used). A probe, or soft piece of pine but little bigger than a match, is pressed up against the centre, and it is passed back upon the floor of the nasal cavity and pushed on till you reach the posterior nares. This will be known both by the resistance and the length of the probe, or the depth which

you have reached. Then slowly withdraw the probe and plug the anterior nares and you have arrested the bleeding. These twenty or thirty ends floating in the blood at once coagulate it. The passage of the soft lint gives no pain whatever. In persuading children to submit to the operation, I often pass the lint up my own nose to satisfy them it gives no pain. If lint is not at hand I use the largest size spool cotton.

Some years ago I called the attention of one of our local societies to this matter, and it was mentioned in a local journal, but attracted no attention. Seeing the notice of Dr. Fridenberg's method in the *Medical Record*, I send this to you hoping it will have a wider circulation. Any sensible layman can perform this operation. Many years ago I was wont sometimes to remain at the patient's house for hours, fearing a return of the bleeding, but do so no longer. The plug is removed in from twenty-four to forty-eight hours. It gives no pain and the patient is willing for it to remain. The other methods are all painful in execution, and the discomfort, while the plug remains, is very considerable.

Chlorodyne Poisoning.

The *Lancet*, September 27, 1890, contains the following account of a case of poisoning by chlorodyne, under the care of Dr. Dickinson, in the Liverpool Northern Hospital, in which it was estimated that there were sixteen grains of morphia in the quantity taken. A stout, flabby man, fifty years old, was admitted to the Liverpool Northern Hospital at 4 P. M. Two hours previously, when under the influence of alcohol, he had taken the contents of a four-ounce bottle of chlorodyne, equal to sixteen grains of morphia. On admission he was livid and comatose, respiration short, stertorous, and at long intervals, pulse slow and full, and pupils contracted. Zinc zulphate and apomorphia had been given without effect. A stiff tube was at once passed, and the stomach well washed out by the syphon. Some hot coffee was then introduced by the same channel. A powerful Faradaic current was then applied and soon had the effect of partially rousing him and improving respiration and color; but as soon as this was discontinued lividity returned. Mustard plasters were applied to the chest and soles of the feet. After a time the battery appeared to lose its effect, but smacking the chest was of good service. As he did not improve the cold douche was applied to his face, with instantaneous effect, and he was soon able to be propped up with his feet over the edge of the bed. As the douche was found inconvenient of application in this position, a Higginson's syringe was used and cold water squirted at intervals on to his mouth and nostrils. This seemed to annoy him much. He was persuaded to stand up and to try to walk, but after a dozen steps would relapse into unconsciousness and lividity. The same result would follow any intermission of stimulation for more than a few seconds. Several hypodermic injections of atrophine, ether and strychnia were given between 4 and 8 P. M.; also sal volatile by the mouth. At about 8 P. M. he became more sensible, and could give an account of his misbap. From this time, although constantly dropping off to sleep, he could easily be aroused. He was kept awake, walking a little at intervals, till 6 A. M., when he was allowed to go to bed. At 11 A. M. he walked out of the hospital perfectly well.

Commenting on this case, Mr. Mothersole said he would like to make a few remarks as to the treatment of this and similar cases. Apart from the administration of physiological antidotes, its *rationale* is to maintain respiration and circulation until the effects of the poison pass off. This is best attained by means calculated to restore consciousness; in the case described it was remarkable how the patient's respiration and color improved whenever he showed any sign of sensibility. The prospect of saving life depends mainly upon the stock of irritability at our command and the means we possess of exciting it. It is desirable to have a variety of stimuli, so as to alternate them, in order that their effects may be less likely to wear off. They should not be applied more vigorously than necessary, lest irritability be exhausted. At the same time internal stimulants are valuable in maintaining and increasing irritability. A most potent stimulus, and one always ready at hand, is the cold douche. The method of its application is worth attention. A large volume of water is by no means necessary. The force and suddenness of the jet and the locality to which it is applied are of far more importance. For efficiency and convenience a Higginson's syringe is an excellent weapon. And the most responsive places are the mouth and nostrils. It is almost

universally recommended that these cases should be treated by walking them about. He said he might be pardoned for holding rather strong opinions on the subject since seeing the disgusting spectacle of a patient, whose legs were utterly unable to support him, dragged about between two stalwart men. What is the object of this treatment? It depends, no doubt, on the fact that so long as the patient is able to walk about he is in no danger of dying, for he must be more or less conscious. But does this movement give much assistance in maintaining consciousness? How often does the patient, as in the case described, relapse into insensibility while being "walked about," even when the contact of his feet with the ground derives an additional potency from the presence of mustard plasters on his soles? In cases of real danger the act of walking affords little if any stimulus, and it must be terribly exhausting when kept up for any length of time. In this way it may help to account for some cases of relapse and death. It is far better to keep the patient sitting in a chair, consciousness being maintained by repeated irritation. In the worst cases the endeavor should be made to keep the patient alive by artificial respiration.

Suturing Extensor Tendons of the Finger.

Dr. W. M. Alrich, in the *University Medical Magazine*, October, 1890, describes the case of a man 21 years old, who came to the University of Pennsylvania Hospital on June 5, 1890, with three ragged lacerated wounds on the dorsum of the right hand, caused by being caught in a planing machine. He was bleeding very profusely, having cut most of the superficial veins. It was at once noticeable that the index finger remained flexed while the others were extended. Examination showed that the tendons of the extensor communis digitorum and extensor indicis muscles were completely severed. After the bleeding vessels were secured and the parts cleaned, the distal ends of the tendons were seen at the bottom of one of the wounds while the proximal tendons were not visible. A grooved director was inserted in the tendinous canal and a counter opening made a short distance anterior to the annular ligament. At the bottom of the incision were found the proximal ends. These were secured by a pair of forceps. Another pair was then inserted in the original wound and along the canal where the grooved director had been carried, the divided tendons were drawn down, and their continuity was restored by means of catgut sutures. The tension was quite marked, since retraction had separated the divided ends about two and one-half inches. The external wounds were approximated by means of silkworm-gut, dressed antiseptically, and motion was prevented by means of a splint.

The stitches in the external wounds were removed in about five days. The patient made an excellent recovery and had perfect control of his index finger, its movements being absolutely normal.

Spermatozoa in the Urine of Women.

The Paris correspondent of the *Pharmaceutical Era*, October 1, 1890, says that a delicate point of ethics was recently raised at Bordeaux. A pharmacist of the place, having been requested to analyze a woman's urine, found it on microscopical examination to contain quite a number of spermatozoa. Feeling doubtful as to whether he should mention the fact in his report, he asked Professor P. Carles, of the Bordeaux School of Pharmacy, for his opinion on the subject. The professor replied that, not long since, he found himself in just the same predicament. A gentleman of some standing in society, who was in the habit of having his urine occasionally examined, one day sent a specimen of his wife's water, with a request that it be analyzed. The microscope having shown the presence of spermatozoa in an otherwise normal urine, Mr. Carles asked himself whether the husband, aware of the microscope's power, was not trying to verify some dark suspicions. Although such hardly seemed to be the case, the professor concluded to keep silent on his discovery. And since then whenever females' urines are presented, either described as such, or identified from special histological constituents, he has made it a rule to omit in his report all mention of any spermatozoa that may have been found. Their presence is only noted, confidentially, when the report is to be handed personally to the physician. Of course in a legal case the same course would have to be followed. The writer of the letter adds that it may be of some interest here to remark that some

years since a like instance occurred in Brooklyn, N. Y. Two well-known physicians attending the young unmarried daughter of one of the "first families" there, were one day taken aback by the discovery of swarms of the tell-tale microzoa where they had no business to be. After consultation, spermatozoa not being a morbid symptom in female urine, they wisely came to the same conclusion as the French professor, and kept their find to themselves.

Influence of Ventilation on Micro-organisms Suspended in the Air.

In a communication to the *Zeitschrift für Hygiene*, Band vii, Heft 1, 1889, R. Stern says that from ventilation we expect to get rid, not only of the gas-forming products of tissue change and of decomposition, but also —and what from hygienic considerations is still more important—of any possible bearers of infection which may be suspended in the air. His experiments show that ordinary ventilation does not fulfil these requirements. In a large room of 85 cubic meters he scattered dust containing artificially-developed bacteria. The rapidity with which the dust spontaneously settled, and the influence of different degrees of ventilation, was then tested. The quantity of germs floating in the air was ascertained each time before and after the experiment, by means of the method of Petri. When the air is quiet the germs sink quickly to the ground. On examining the fine dust collected from school-rooms, six feet above the ground, on desks, etc., the air in one and one-half hours was already found nearly free from germs. The most customary degree of ventilation, which corresponds with a renewal of the air once, twice or thrice in the hour, purifies the air of germs no more, or very little more, quickly than simply allowing them to settle. An increase of the degree of ventilation, which is scarcely feasible without causing direct draught, increases gradually the influence of ventilation upon the germs floating in the air. The limit at which a more powerful and more rapid action begins, should correspond to a renewal of the air six or seven times an hour. A rapid and complete clearing of the germs from a dwelling-room is accomplished only by a powerful draught. A considerable separation of germs from floors, paper, furniture, clothing, etc., cannot be accomplished even by strong airing of the room. Finally, the development of vapor does not quickly and completely precipitate germs suspended in the air, though it hastens their deposition in a slight measure.—*Münchener med. Wochenschrift*, Sept. 16, 1890.

Thiol.

Prof. Schwimmer, in the *Wiener medicinische Wochenschrift*, No. 30, 1890 (*Deutsche medizinal-Zeitung*, Sept. 22, 1890), states that in an endeavor to produce an artificial ichthyol, free from the unpleasant qualities of the natural article, Dr. Jacobson discovered thiol, a carbon compound, containing twelve per cent. of sulphur, readily soluble and absorbable, having reducing properties and possessing a not-disagreeable odor. The usefulness of both ichthyol and thiol is largely dependent upon this sulphur, the intimate association of which with carbon removes the irritating quality of free sulphur. Schwimmer has used thiol in a large number of cases of cutaneous disease and arrives at the conclusion that the remedy is indicated in affections in which desiccation and contraction are sought. The following are useful formulæ:

℞ Thioli liquidi . . . . . 30 to 50 parts
Aquæ destillatæ. . . . . 100 "
M. S. For topical application.

℞ Thioli liquidi
Glycerini . . . . . aa 50 parts
Aquæ destillatæ . . . . . 100 "
M. S. For topical application.

℞ Thioli liquidi . . . . . 10 parts
Unguenti simplicis . . . . . 50 "
M. Ft. Unguentum.
S. For topical application

℞ Thioli sicci pulveris q. s.
S. Dusting powder.

Buzzi prescribes gr. ss. to gr. xv of dry thiol, in tablet or pill, or gtt. iij to gtt. xx of liquid thiol, in water, three times daily.

Chicago Pasteur Institute.

Dr. A. Lagorio writes to the *Medical Standard*, October, 1890, that since the inauguration of the Pasteur Institute in Chicago, on July 2 there have been treated to date [date not stated. Ed. Reporter] twenty-four persons; thirteen having been

admitted in July and eleven in August. Sixteen were males and eight females. The youngest patient was four years old and the oldest fifty-five years. Sixteen came from Illinois, two from Indiana, one from Ohio, three from Iowa, one from South Dakota, one from Arizona. One patient was bitten by a skunk, two patients by a cat, and twenty-one by dogs. Eight patients were bitten on the hands, two on the face and fourteen on the body and limbs. Twelve patients were bitten by animals recognized to have been mad by the symptoms shown during life, and twelve patients by animals suspected of having been mad. Eight patients had their wounds cauterized with lunar caustic, three with carbolic acid, one with potassic hydrate, one with ammonia, and eleven were not cauterized. To nine patients was given the simple treatment of ten days' duration, with one inoculation daily. To fifteen patients the modified intensive treatment of fifteen days' duration, with two inoculations daily, rest on the sixth and twelfth day.

Once the brain of a suspected animal was brought to the Institute and two rabbits were inoculated with it, but the result being negative the patient was not treated. Over sixty persons were declined treatment as reasonable evidence was not produced to show that the animals were mad or even suspected to be so. Every patient tolerated the inoculation perfectly well.

The time which elapsed between the date of the bite and commencement of treatment was as follows:

1 day in 3 patients.
2 days in 3 patients.
3 days in 3 patients.
4 days in 4 patients.
5 days in 1 patient.
6 days in 2 patients.
7 days in 1 patient.
9 days in 2 patients.
12 days in 1 patient.
3 weeks in 1 patients.
1 month in 2 patients.
1 year 2 months and 14 days in 1 patient.

Not a single accident has occurred in any patient during treatment, and all left the Institute in perfect good health..

Training Schools for Nurses in New York.

From "The Training of a Nurse," by Mrs. Frederick Rhinelander Jones, in an article in *Scribner's Magazine*, November, 1890, says that the Bellevue Training School for Nurses was started on May 1, 1873, with a superintendent and five nurses, having five wards under their care.

In 1890 the school has 62 pupils and has graduated 345, while as a direct outgrowth of that modest beginning there are three other great schools in New York alone. These are the New York City, which has 64 pupils and has graduated 263; the New York Hospital, with 48 pupils and 192 graduates; and Mount Sinai, with 50 pupils and 111 graduates. There are also smaller schools in the city, but, great or small, Bellevue must always be honored as the pioneer. Her graduates are at the head of most of the important schools and hospitals in the country, and have even gone so far afield as England, Italy, and China.

The next school to be established was the New York City, which was started by the Commissioners of Charities and Correction in 1877, and is entirely supported by the City. Until last year it was known as the Charity Hospital School, because it began there, but as it grew its work spread until the old name was misleading and had to be changed. It is now the largest and in some respects the most important of all the schools, as it nurses five different hospitals—Charity and Maternity on Blackwell's Island, the Infants' Hospital on Randall's Island, Gouverneur at Gouverneur Slip, and Harlem, at the foot of East 120th Street, the last two being accident or emergency hospitals, while at Charity the cases are largely chronic. Besides the pupils of the school there are thirty-two permanent trained nurses at Charity and Randall's Island, making nearly a hundred in all, for whom the superintendent is directly responsible, and over whom she has full authority. The other schools in the city are supported from the funds of the hospitals which they nurse.

Coffee as a Disinfectant.

The *Deutsche Medizinal-Zeitung* for September 22, 1890, quotes the following from the *Journal de Médecine d'Algérie*. On an extremely hot day in Algiers, Dr. Barbier and some officers were directed to a village inn, to make an examination of the body of a murdered man. They were led to a small apartment in which the body lay, but were met by so intolerable an atmosphere that they at once retreated. Upon request a plate of ground coffee was brought and sprinkled upon the cadaver, the floor and the walls. The horrible stench disap-

peared and the examination was proceeded with without interruption. Gratified with the result, Barbier soon found occasion to make a similar use of coffee, with equal success, in the case of a body which had lain in the water for a week. He now began to use coffee in this way in the treatment of foul ulcers, and with good results. He considers coffee an antagonist of the narcotic effects of tobacco, for which there is no better antidote. He also recommends the use of coffee for the disagreeable odor sometimes acquired by ice-chests for the preservation of animal foods. To preserve game, this shouid be first cleaned and then strewn with coffee. It was also observed that cholera bacilli and other microbes lose the faculty of multiplication in infusions of coffee.

Hypnotism in Belgium.

The *Deutsche Medizinal-Zeitung*, Sept. 22, 1890, makes the *Bull. Med.* No. 60, 1890, authority for the statement that the Belgian Chamber of Deputies has recently adopted the following law:

1. Any one exhibiting a hypnotized person will be punished with imprisonment for from fourteen days to three months, and a fine of from twenty-six to one thousand francs.

2. Any one not medically qualified who shall hypnotize a person under eighteen years of age or a person not of sound mind, shall be punished with imprisonment for from fourteen days to one year and a fine of from twenty-six to one thousand francs, even though the hypnotized person be not used for exhibition.

3. Any one who, with fraudulent intention or with intent to injure, shall permit a hypnotized person to write or sign a document containing an agreement, making a disposition of property, entering into a contract, granting a release or containing any declaration, shall be punished with imprisonment. The same punishment applies to any individual who shall make use of any such document.

Massage in Headache.

Dr. Norström, finding that a good many cases of headache occur where, though the symptoms are more or less like those of migraine, the remedies suited to that affection are of but little use, examined the heads of such patients carefully, and came to the conclusion that the pain must depend upon inflammatory thickenings existing at the insertion of various muscles, especially the sterno-mastoid, the temporal, the scaleni, the trapezius, and the occipito-frontalis. These indurations do not usually produce any local pain, and therefore are generally unnoticed both by physician and patient. They are commonly the result of "taking cold," and the headaches they cause can be traced to changes in the weather. Dr. Norström obtained excellent results by regular massage of these indurated spots, the sittings lasting for about a quarter of an hour. Similar treatment is also efficacious where the headache is due, as it sometimes is, to enlarged lymphatic glands. Of course, little result can be expected from massage in headaches of anæmic or of hysterical origin, or where there is organic cerebral disease.—*Lancet*, Sept. 27, 1890.

A New Form of Nasal Tampon.

The *Deutsche Medizinal-Zeitung*, Sept. 25, 1890, describes a new form of nasal tampon devised by Ignazio Dionisio, as published in the *Monatsschrift für Aerztliche Polytechnik*. By means of this instrument the nasal cavity can be tamponed, in case of hemorrhage, without interfering with nasal respiration. The principle is that of the Trendelenberg canula for the trachea. A tube similar to a catheter, surrounded by an elastic rubber bag, is introduced into the nasal cavity, and the bag is distended with air or water. The bag adapts itself to the cavity, while the respiratory current of air passes through the tube. By this method septic decomposition of blood absorbed by the tampon is impossible.

Apomorphia for Croup.

The emetic properties of apomorphia may prove of great service in a variety of conditions, one of which is croup. One-eighth of a grain may be dissolved in six teaspoonfuls of water, and of this a teaspoonful may be given to a child every five or ten minutes until emesis results. The second or third dose usually does the work. One great advantage of apomorphia is that it may be given hypodermically to persons—old or young—who cannot, or will not, swallow.

THE

MEDICAL AND SURGICAL

REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

KOCH'S METHOD FOR CONSUMPTION.

Since our Editorial of November 15 was published, the formal announcement by Professor Koch of his method of treating consumption has been cabled to this country and published in the newspapers. A careful examination of this announcement does not lead to any modification of the opinions already expressed in the REPORTER. It is probably safe to assume that Koch's method accomplishes something very remarkable in the treatment of lupus, as the cases alluded to in his paper are of a very striking sort, and—besides the credence which his accomplishments thus far have entitled him to—his operations have been witnessed by men of well known ability and integrity. When it comes to consumption, however, we think the announcement is of a most unsatisfactory character. When sifted, Koch's sole claim seems to be that by his method of treatment the condition of patients with incipient phthisis may be improved—how much, or how soon, his communication does not say; while for cases of advanced phthisis, with marked cavities, he makes no distinct promises. Rightly understood, this seems to be about what we had already accomplished in the management of this disease. Humanity prompts the hope that Koch's method may accomplish all that the most enthusiastic have claimed for it; but scientific men must carefully distinguish between what is legitimate as hope, and what is to be accepted as a demonstration.

The rush of patients and physicians from various parts of the world to Berlin, which followed Koch's announcement, must be deplored; because, taking this as Koch and his immediate followers present it, there is nothing to be got at Berlin except his curious remedy—his nostrum. The mode of administering it Koch seems to have disclosed, and in this there is nothing which the humblest practitioner in medicine cannot imitate, when once the proper remedy is put within his hands.

We must repeat our condemnation, already expressed, and still strongly felt, against the way in which Koch keeps to himself the nature of a remedy which is expected to be of so great service to mankind. The claim that this is done in the cause of science may be honestly put forth, but it can by no means be accepted. The right course, the course in accordance with the principles contained in the Hippocratic oath, and the principles which have been the glory of the medical profession, ever since it had the slightest claim to be a profession—would lead, we think, any purely humane, unselfish man at least to tell the world how he prepared a remedy, for which such great virtues are claimed, and of which mankind stands in such sore and pressing need. If his method were perfect, no time could be too soon for such a gift to his fellow-men; and if it were imperfect, we

think a sincere and a thoroughly good man would then tell what progress he had made, in the hope that perhaps some more fortunate, or possibly more ingenious investigator might reach the goal before he did, and so much the sooner give to the numberless sufferers with consumption the rescue, while waiting for which they might otherwise die.

NOT A FAST BUT A FRAUD.

In this issue of the REPORTER, we publish a letter signed by Dr. W. F. Hertzog and Dr. W. D. DeLong, containing a very interesting and conclusive report of their examination of Mrs. Wuchter, the alleged faster, near Allentown, Pa., to whose case reference has been made in the REPORTER a number of times. This report and the most recent developments of her case furnish very satisfactory evidence of the correctness of the opinion expressed in the REPORTER when the case was first commented on, September 27, 1890. About that time, the family physician of this woman and her husband and the *New York Herald* made an attempt to work upon the sympathy of the public by decrying the criticisms of the REPORTER, and especially the caption of our Editorial.

In closing the subject, however, we think it proper to say that the whole history of the case furnishes abundant confirmation of the opinion expressed by the REPORTER September 27, 1890, and justification for entitling the Editorial in regard to it, "Not a Fast but a Fraud."

A LEPER COLONY.

We note with interest that Dr. William H. Ford, President of the Board of Health of Philadelphia, has addressed to Dr. J. B. Hamilton, Surgeon-General of the United States Marine Hospital Service, a letter, in which he proposes, at the suggestion of Dr. Duhring, of this city, that the Government shall provide a leper colony to which persons having leprosy, who may be detected in the United States, may be sent, with a view to their isolation under less trying circumstances than accompany isolation as practiced now in the different localities in which they are found. He proposes that the Government shall provide places where persons suffering from leprosy can be separated from the public and humanely cared for and treated in such a manner as not to deprive them entirely of the comforts and enjoyments of life. The protection of the public and the humane management of the unfortunate subjects of this disease are the two-fold objects that would be accomplished by this course.

He adds that it is the consensus of opinion that persons suffering from leprosy, on account of its peculiar nature, its chronic character, and the abhorrence with which the public view it, should be removed from the midst of society and humanely cared for and treated in places specially set apart for this object. It is impracticable for towns or cities or even States to provide such places on account of the expense: the number of cases not being large enough to warrant the necessary expenditure. He asks what is finally to be done with the lepers now ill provided for, and those that shall be discovered in the future? They cannot be treated in general hospitals, except for a very limited time. It is difficult to return them to their native countries, though most of them are unnaturalized foreigners. Where there are hospitals for the treatment of contagious diseases (and few places have such special institutions) temporary provision might be made for them. Here they must necessarily be secluded in unfrequented apartments, denied intercourse with relatives and friends, shut out from the world, denied the freedom of outdoor exercise because of the popular aversion to the disease, and doomed to a life of suffering and, what is worse, mental anguish on account of their deserted and hopeless state. What is to become of lepers who may happen to be discovered in places which have not even such inadequate means

for their care? Dr. Ford says there are probably to-day lepers in every large city in the country which necessitates providing many places for their treatment. Barring the expense, it is not wise to multiply these settlements. Nevertheless the public must be protected, even though it be at the expense of the liberty and happiness of those unfortunate subjects whose condition could be greatly ameliorated by their segregation in one or more well appointed stations in convenient parts of the country.

Dr. Ford's suggestion deserves careful consideration, and we believe might well be adopted, although the readers of the REPORTER know it is our opinion that leprosy is not contagious in the ordinary sense of the term, and that lepers ought not to be treated as if it were; nevertheless, we believe that in the present state of science and the present condition of public opinion, it would be very advantageous if the Government would appoint and maintain a place where lepers could be sent and treated, for their own good and for the comfort of the community—if not for its protection. We commend this matter to the thoughtful consideration of the readers of the REPORTER. Surgeon-General Hamilton has already indicated his approval of the idea in general, while pointing out the fact that the United States Government cannot force citizens affected with leprosy to leave their homes. This we quite understand; but would be glad if the Government could provide a place for voluntary segregation of citizens and compulsory segregation of aliens, so that the practicability and desirability of the method might be tested.

TREATMENT OF ECZEMA IN CHILDREN.

The treatment of eczema is not so definitely settled as to be one for all cases. Every case has its own peculiarities and demands special attention. Remedies which may be valuable in one may be found worthless in another. The treatment of the disease, when occurring during childhood, must be different from that employed in adults. Realizing this, Dr. E. Saalfeld, in the *Deutsche Medicinische Wochenschrift*, July 3, 1890, has endeavored to place the treatment of eczema in children upon a rational basis.

The disease in children owes its origin, in many cases, to excoriation, or chafings, between the nates, in the bend of the knee, and in the folds of the neck. This is most frequently met with in fleshy children. In eczematous intertrigo, when the usual household remedies, such as salves and powders, have failed to give relief, a careful regulation of the diet and a change of food is primarily indicated. Very frequently diarrhœa will be an accompanying symptom, and this should be checked at once. If the skin is highly inflamed, a cool application of equal parts of a five per cent. solution of boric acid and lead water, and the use of a five per cent. boric acid ointment will be found most beneficial. If the skin is moist, it should be dried with powder, before the ointment is applied. In cases of eczema of the head and face the diet should be very plain and contain as little fat as possible. The bowels should be kept open by means of suitable laxatives. The flakes and scales should be moistened with olive-oil and removed. The underlying skin may then be treated with an ointment composed of boric acid, one and one-half parts; oxide of zinc and starch, of each five parts; vaseline, thirty parts.

In general eczema, especially of a scrofulous origin, the constitutional treatment plays a most important part, and should include a careful regulation of the diet, the administration of cod-liver oil in connection with phosphorus, and arsenic internally. The local treatment in these cases should consist merely in the application of vaseline and subsequent powdering.

Naturally, before any treatment for general eczema is instituted, a careful examina-

tion of the skin should be made, in order to exclude the possibility of the disease having been caused by the presence of parasites.

In conclusion, Saalfeld warns against the use of tar, since it is very irritating to the skin of children. Its place may, however, be ably filled by an ointment composed of white precipitate of mercury, one part; balsam of Peru, five parts; and benzoinated oxide of zinc ointment, thirty parts.

Naturally, the hygienic surroundings of the patients is very important; well-ventilated rooms, fresh air and scrupulous cleanliness, all contribute largely to a rapid recovery.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY, for the year 1890. Vol. xiv. 8vo, pp. 479. Detroit: O. S. Gulley, Bornman & Co., 1890.

This volume includes the transactions of the Society at its twenty-fifth annual meeting, at Grand Rapids, June 19 and 20, 1890. It is impossible to review it satisfactorily, because it contains no less that thirty-five papers and addresses, besides the discussions and a number of reports, etc. The subjects cover a wide range, and are all of quite unusual excellence. It is evident that the medical profession of Michigan is thoroughly modern in its medical ideas, and that it comes to the annual meetings prepared for a vast amount of admirable work.

The volume is well printed, and firmly but simply bound. It is in every way a credit to the Society, and to the Editor, Dr. Charles W. Hitchcock, of Detroit.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY, Vol. xi, quarto, pp. 1,102. Washington: Government Printing Office, 1890.

As each new volume of the Index Catalogue appears, we have anew the pleasure of praising the industry and skill of its Editor, and the wise liberality of the Government, which puts so valuable a work within the reach of all investigators in medicine. The eleventh volume, which has just come to hand, contains the words Phædronus—Régent. We notice the subject of phthisis covers seventy-nine pages, which shows the enormous literature it has devoted to it.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION, Thirteenth Annual Meeting, Boston, Mass., September 17, 18, and 19, 1889. 8vo, pp. 80. New York, 1889.

This volume, according to the table of contents, contains a number of papers read before the Society at its meeting in 1889. But in looking through it we are surprised to find that, with perhaps one or two exceptions, only the titles of the papers are given. The discussions on them, however, are in most cases so full that one gets a very good idea of what the author must have said. It is a pity, nevertheless, that both papers and discussions could not have appeared together. We hope this may be the case with succeeding volumes. The original articles are too valuable to be lost.

ESSENTIALS OF ANATOMY AND MANUAL OF PRACTICAL DISSECTION, TOGETHER WITH THE ANATOMY OF THE VISCERA. Prepared especially for Students of Medicine. By Charles B. Nancrede, M. D., Professor of Surgery in the University of Michigan, Ann Arbor, etc. Third Edition, revised and enlarged. 8vo, pp. x, 388. Philadelphia: W. B. Saunders, 1890. Price, $2.00.

The present edition differs from its predecessors in containing a series of thirty colored plates, taken from the works of Maclise, Savage, Quain, and Hirschfeld. They have been chosen with good judgment, for the purpose of making the book useful to the student in the dissecting-room. The rest of the book abounds in good wood-cuts, there being one hundred and eighty in all, which amply illustrate the text. There is also a good index. In fact, it is much more of a book than most of the others intended for the same class of readers, and is most excellent in plan, style and contents.

Correspondence.

The Alleged Faster.

To the Editor.

Sir: On October 20, we visited Mrs. Adam Wuchter, of White Hall, Lehigh Co., Pa., whose case has been so fully discussed in the Reporter, and who was said by her friends to be suffering from a malignant affection of the œsophagus which made her unable to swallow, and to have lived in this condition, without food or drink, for about seven months. We could not get a history of her ancestry; but she was an only child. These are often "spoiled," and likely to become nervous. Prior to her present illness, she had spells of sickness that lasted for months; and then she would get well enough to do her house-work again. In the present illness she lost her voice suddenly, and has been in bed for nineteen months.

On looking at her, we saw a woman somewhat emaciated, her eyes covered with a cloth, on removing which we found the eyeballs turned up. Taking hold of her right arm we found it apparently paralyzed. In trying to percuss her chest and abdomen, there seemed to be diminished sensibility of the skin of those parts; but her limbs could be freely handled without giving her

pain. The radial pulse could not be detected on account of the muscular tremors which she constantly had when any one attempted to feel it; but there was a good heart action. She had no œdema and no bed-sores, such as might be expected from long lying in bed and starvation. She talked aloud and glibly enough to show that her mouth was not dry. She told us to give her water to drink, so that we might satisfy ourselves that she could not swallow. But when we brought the cup near her lips she had a regular attack of hysterical convulsions. Before we went off she treated us to a spell of hysterical dyspnœa. Her husband said she had urinated only once since Good Friday! (It will be remembered that Ultzmann, who had such a large experience in the treatment of disorders of the genito-urinary organs, saw cases of anuria in hysterical women which lasted from one to two days. Benedikt reports a similar case of eight days' duration, but nobody ever claimed such an absurd period as does this woman's husband.)

Our diagnosis of the case was hysteria; for the manifestations of hysteria were so prominent as not to be mistaken. If there were an organic trouble in her case, the hysterical manifestations would have been less prominent by this time. Before we had a right to reject the diagnosis of cancer of the œsophagus which had been made public, we had to exclude that. In regard to this point the woman did not, in our opinion, have the cancerous cachexia; no tumor of any kind was visible on the outside of her neck, and no instrument was ever passed down her œsophagus to see whether any *real* obstruction of any nature existed. If she had acquired aphonia from an organic disease, it would not have appeared suddenly. Last, but not least, she would have died before this. Mackenzie says the average duration of life in his one hundred cases was eight months; the maximum being sixteen months, the minimum five weeks.

As to her alleged long fast, we will simply say that her condition when we examined her did not warrant belief in it.

As to prognosis, we, at that time, predicted her final recovery, and recent developments are justifying this prognosis.

Yours truly,

Oley, Pa. W. F. HERTZOG, M. D.,
Pikesville, Pa. W. D. DELONG, M. D.
November 12, 1890.

Correction.

TO THE EDITOR.

Sir: Your report of my short paper before the New York State Medical Association (REPORTER, November 8, page 537) is very correct; but by mistake it is credited to Dr. McCollom. If it is worth anything, I want the credit; if it is not, then Dr. McCollom does not want the discredit.

Yours truly,

IRA B. READ, M. D.
66 East 126 St., New York.

[We regret the error of one of our New York correspondents, which was due to his want of familiarity with the faces of the speakers at the last meeting of the New York State Medical Association.—ED. REPORTER.]

NOTES AND COMMENTS.

Relation of the Sexual Functions to Mental Disorders of Women.

At a recent meeting of the British Gynæcological Society, Dr. Robert Barnes read a paper in which he said the association of nervous disorders with disease or disordered function of the sexual organs in women was of frequent occurrence. He discussed the influence upon the organism as a whole of the menstrual and climacteric periods, both of which put the nervous system to a severe strain. Consequently any inherited or acquired weakness of that system was peculiarly liable to make itself felt at one or other of those momentous epochs. Many nervous disorders were associated with dysmenorrhœa and disappeared upon the removal of the cause. In other instances the disordered mental condition was associated with "copremia," by which he designated a combination of spanemia and toxemia. He related several examples of the supervention of insanity consequent upon displacements of the uterus, and their relief after suitable local treatment. He then discussed the influence of the removal of the uterus and ovaries in the production of insanity, and considered the propriety of operating when the association of the mental condition and certain disorders of the reproductive organs was such as to justify the assumption that they stood to each other in the relation of cause and effect. More careful examination should be made of the pelvic organs of insane women with the view of endeavoring to remedy any local disease when this was

possible. He particularly insisted upon the necessity for this course in the case of women suffering from puerperal mania.

In discussing the paper Dr. Savage said that it could only be in a very small proportion of cases of insanity in females that any good could be done by treatment directed to the reproductive organs. He raised the question as to whether the confirmed habit of masturbation was the cause or the effect of the mental condition. He insisted upon the diagnostic value of hallucinations of the sense of smell as indicating the coincidence of some affection of the uterus or its annexes. He protested against procuring abortion with the view of cutting short an attack of insanity in pregnant women, or in those who had previously suffered from puerperal mania. He remarked that in physical characteristics the degenerate man tended to approach woman and *vice versâ*, and he asked whether women who presented such masculine features as an abundant growth of hair on the face, etc., were more prone to this kind of break-down, and whether degenerative changes in the reproductive organs were usually associated with any abnormality in this respect.

Dr. Wilks insisted upon the difficulty of distinguishing between what was a constitutional and what a local disorder. He was quite prepared to admit that local causes might determine nervous disorders, and this was peculiarly the case in regard to diseases of the reproductive organs. He intimated his opinion that in all probability confirmed masturbation was the result, or the immediate forerunner, of insanity.

Dr. Hack Tuke, while admitting the influence of disordered menstruation upon the mental functions, said that his experience had taught him that disappointment but too often followed gynæcological treatment in these cases. He instanced the meagre results obtained at certain American asylums where special measures had been taken for the study of the correlationship of the two classes of disorders. At the same time, he said he had met with a number of cases of mania and epilepsy in which he would have liked to have seen oöphorectomy performed. He did not see what objection there could be to performing the operation in such cases. He concurred in the view that it was undesirable to procure abortion in cases of insanity in women.

Dr. Mercier pointed out that any addition to the functions of the body such as occurred at puberty, and any abstraction of functions as by castration, was liable to give rise to more or less serious and permanent disturbance in the distribution of nerve force, the proper play of which was essential to perfect equilibrium.

Concussion of the Spine.

About many subjects in medicine and surgery there lingers much indefinite knowledge. It is partly tradition handed down from one generation and one author to another, and yet it is not thrown aside because of a lack of anything more definite to take its place. It is therefore an agreeable task to chronicle an advance in positive knowledge. In no class of injuries has this been more needed than in those of so-called "concussion." Hitherto the views of Erichsen and Page have been authority, and they undoubtedly contain much that is fundamental and generally admitted to be true. It has been the fortune of an American surgeon, Dr. B. A. Watson, of Jersey City, to supplement these ideas by the published results of an elaborate series of experiments.

In the course of the work one hundred and forty-one dogs were experimented upon. The animals were uniformly dropped twenty-five feet, and were so hoppled in one hundred and thirty-five cases that the blow was delivered on the nates, while the spine formed a nearly perpendicular line to this point. In six other cases the blow was received along the spine, while the head of the animal was sufficiently raised to prevent its coming in contact with the floor. Immediately before each trial a full record was made of the animal's weight, age, sex, pulse, temperature, respiration and of the condition of the pupils. These observations were carefully resumed the day after the trial. Full pathological examinations, in gross and microscopically, were made by Dr. Frank Ferguson.

We can but briefly allude to the well-analyzed results given by Dr. Watson. The injuries received by the animals "were frequently compound and nearly always complicated, while in degree of severity they differed widely, being in some instances quickly fatal and in other cases they were so slight as to be imperceptible either in the *post-mortem* or microscopical examinations." The last record of vital conditions in the animals surviving the fall was made just be-

fore they were killed by chloroform. In 5 cases there were fractures of either the ribs or vertebræ; in 11 an incomplete rupture of the sacro-lumbar ligaments was found, but in every instance some pathological change had resulted also in the cerebro-spinal axis. Quickly fatal results happened in 4 cases. The spinal ligaments were stretched in 5.

Of injuries to the viscera the most frequent was hemorrhagic infarctions of the lungs, 36; then followed, in order, congestion of kidneys, 32; lacerations of liver, 15; ecchymosis of psoas muscles, 7; pneumonic hepatization, 5; hemorrhagic infarctions of liver, 4; and others of less frequent occurrence, including rupture of spleen, 1; of liver, 1; of kidneys, 2; of pelvic blood-vessels with considerable hemorrhage, 2; and of bladder, 1.

Dr. Watson intelligently discusses many of the problems which this series of experiments presents. We deem his conclusions of sufficient importance to present them in outline as follows:

1. Concussive accidents never produce pathological changes in the cord unless great force has been applied to the spine. These cases are generally complicated with vertebral fracture or dislocation, rupture or stretching of vertebral ligaments, or distant injuries so severe as to quickly prove fatal.

2. The symptoms develop immediately and are rarely intensified by morbid changes in the cord; exceptions, fractures, dislocations and slowly developing hemorrhage causing pressure on the cord.

3. It is very difficult to demonstrate stretching of vertebral ligaments on living subjects. The lesion is frequently overlooked on autopsy.

4. Injuries of the cord, with visceral injuries in addition, develop symptoms dependent on the existing complication. The termination of the case rests on the character of the traumatism.

5. Concussive force, though remotely applied, frequently results in the production of severe and even fatal traumatisms in various organs within the three trunk cavities.—*Medical Record*, October 18, 1890.

Strychnine as a Preventive of Tetanus.

The *Bulletin Médical*, September 21, 1890, says that Peyraud, continuing the application of his theory *similia similibus*, not for the cure but for the prevention of infectious diseases, has just communicated to the Bordeaux Medical and Surgical Society some experiments relative to the power of strychnine to prevent tetanus. According to Peyraud, as strychnine acts upon the nervous system in such a manner as to provoke a state altogether similar to that produced by the virus of tetanus, it should put the nerve cells in such a condition that they can no longer react to infection by tetanus. This is his theory.

On April 23, 1889, he made sub-cutaneous injections of a solution of strychnine, containing one-sixtieth of a grain to the fluid drachm, in the case of thirteen rabbits of various weights and ages, but none older than five or six months, the youngest being four months old. A half (Pravaz) syringeful was injected under the skin of the flank. The following day an exactly similar dose was injected. On the 25th, he increased the dose a little (by one division of the syringe-piston). Ten of the animals were seized with convulsions, and three died; three were unaffected. The next day the first dose was resumed. Only two of the animals had convulsions, and on the 27th, three. Tolerance to strychnine injected under the skin does not, therefore, seem to have been established. On the evening of the 27th, he made his inoculations with a little rabbit made tetanic with the powder of hay. This animal had pleurosthotonos so pronounced that it was literally bent double on the inoculated side. He first made six inoculations under the skin of the head, always using a small particle of tissue taken from around the tetanus-bearing wound. He says: "I even scraped with my scalpel the serum and the pus from the wound, and dried this scalpel upon the lips of the inoculation wound, that the inoculation might be quite certain and complete." The small wound was sewed up hermetically. At this time the animal with tetanus died. It was replaced by another in the same condition, but a little less moribund than the preceding, and Peyraud then finished the inoculation of the four remaining dogs poisoned with strychnine, and of two unprotected animals, as a control experiment. Again, a small piece from the wound and the fluids from the rabbit which died of tetanus were used to inoculate two other unprotected animals. Thus fourteen rabbits were inoculated; ten prepared by strychnine, four unprepared, as control experiments. On April 28, Pey-

raud took four of the rabbits injected with strychnine and completed their preparation by a fresh dose of strychnine—a little less than that given on the 27th. One only had some very slight convulsive movements. On May 1, one of these animals was seized with tetanus and died in opisthotonos the following night. Two more died in the next two days, but the fourth, though it showed embrosthotonos and refrained from food for two days, did not die. The protected animals, which did not receive any supplemental injection of strychnine after inoculation remained well except one, which had a slight contracture of the right hind leg. All the animals used for control experiments died of tetanus between the second and fourth days. Peyraud says he has obtained the same results in another series of cases, and he believes his results demonstrate that strychnine has power to prevent tetanus.

Experimental Investigations with Tuberculous Milk.

The *Deutsche Medizinal-Zeitung*, Sept. 25, 1890, contains an abstract from a highly interesting paper by Dr. Bang, of Copenhagen, published in the *Deutsche Zeitschrift für Thiermedicin*, Bd. 17, Heft 1. From fifteen to thirty minims of milk from twenty-eight tuberculous cows with healthy udders were injected into the abdominal cavities of as many rabbits. The milk of only two cows proved infectious. The milk of eight highly tuberculous women produced no evidences of tuberculosis. Abscesses which occurred at the site of innoculation or in the abdominal cavity were not tubercular. Sweet and sour cream, obtained from tuberculous milk containing many bacilli proved virulent. Butter made from the milk (containing many bacilli) of a cow with advanced tuberculosis of the udder, injected into the peritoneum, produced severe tuberculosis. Feeding rabbits with such butter was followed by a like result. The use of butter obtained from tuberculous animals need not therefore be regarded as especially dangerous. The secretion of milk in cows with advanced tuberculosis—at best but slight, is permitted to cease entirely. Besides, such cows rarely supply tuberculous milk, from which by centrifugal action the bacilli are largely removed.

Gebhardt has demonstrated that the danger of infection is in direct proportion to the number of bacilli. These experiments emphasize the necessity of paying careful attention to tuberculosis of the udder. Further investigation demonstrated that the bacilli or their spores are not deprived of their virulence by exposure to a temperature of 176° F. but that for this a temperature of 185° F. seems to suffice. A temperature of 212° F. is absolutely destructive of the bacilli. This statement as to the degree of heat applies to the tuberculous fluid, not to the bath. Two rabbits, fed with tuberculous milk heated to 140°–149° F. showed signs of mild tuberculosis, while of six given the milk unboiled, all succumbed to typical tuberculosis. Rabbits which received milk heated to 158°–167° F. remained absolutely free from infection. A rabbit, fed for seventeen days with unboiled tuberculous milk, which died accidentally, showed only tubercules in the lymphatic glands above the fauces—clinically the primary site of tuberculosis in cattle and swine. Dr. Bang considers it probable that a large proportion of tubercular (scrofulous) affections of the cervical glands in children owe their infection to tuberculous milk.

Tolstoi and Physicians.

Dr. A. B. Holder has in the *Memphis Medical Monthly*, October, 1890, a very interesting short paper on the opinions of Tolstoi about physicians, as contained in his *Kreutzer Sonata*. In concluding the paper, Dr. Holder says :

"Tolstoi is a fanatic ; we may go a step further and doubt his sanity. No sane mind would see human nature in such sombre colors ; he is morbid ; the good men do finds no responsive chord in his mind, or rather as rays of light entering a different medium, are deflected from the straight, so good is deflected and distorted till in his perception it seems evil. This is a form of insanity.

"This miserable pessimist, great man and great mind though he be, finds no good in aught human ; its institutions, its governments, its churches, its priests, its professions, its passions and opinions, all are bad ; marriage is not only a failure but a sin—a 'legalization of sensuality.' His theories are not new ; many years ago I listened with open-eyed wonder while a Shaker Elder from a community in our own

State declared that all love was passion and celibacy the only sinless state. He was gentler and less fanatic and intolerant than the author of the *Kreutzer Sonata*, and I felt there was some truth in his reasoning.

"I have ever doubted if a bit of paper with a seal, and a few words mumbled by an ignorant magistrate, made sexual intercourse between an unloving and ill-mated man and woman less adultery than was the embrace of two young lovers whose prudence in an unguarded moment yields to passion; whether the woman who weds a man for his wealth or position is less an unchaste woman than she who receives her lover without consent of Church or State *for love of him*. I know the world regards them differently; 'honored well are charms to sell, if priests the selling do,' but—I doubt. Still, as it now stands, marriage is the best solution ever yet offered to the great problem, and the man who would endeavor to solve the problem without marriage forgets that it is a human and not an ideal and angelic race he deals with."

Infant Mortality in Chili.

Theodore Child says, in *Harper's Magazine*, November, 1890: The poor alone live in public, either in the unhygienic sheds and cottages of the city, or in the rudimentary cane huts of the suburbs, where the *peones* and their families squat on the ground like wild Indians, and manifest fewer evidences of civilization than the miserablest of the Russian peasantry. For the *peones*, life is truly a question of the survival of the fittest, inasmuch as none but the very strongest can live through the trials of childhood.

Thanks to the fearful dens in which the poorer classes of Chili live, the infant mortality is enormous. On the other hand the *peones* and their women folk are prodigies of hardy endurance; they are indeed the fittest and strongest of their generation, all the weaker having died in the first few months or years of their struggle against insalubrious circumstances and conditions. These infant victims of defective sanitary arrangements do not occasion grief or mourning by their premature departure from this world; their mothers believe that the little souls immediately go to paradise and become angels, and so they are called *angelitos*, and their death is a pretext for rejoicing, and inviting neighbors to drink and dance. The little corpses are kept for days and days; often you will see women in the trains and the horse-cars with dead babies in their laps; the photographers, too, are constantly having infant corpses brought to them to make souvenir portraits. In the country the death of an infant will interrupt work for a week or more. In one village that I happened to visit an epidemic of measles had made half a dozen *angelitos*, and for nearly three weeks no work had been done for many miles around. The whole population had been keeping up a continuous wake, dancing, singing and drinking round the *angelitos*, who were dressed up like church images, and surrounded by burning tapers. This belief in *angelitos* and the custom of wakes also prevails in Peru, Bolivia, and the Argentine.

Treatment of Pelvic Inflammation.

In a paper entitled: "How shall we Treat our Cases of Pelvic Inflammation?" read before the Southern Surgical and Gynecological Association, at its last annual meeting, Dr. R. B. Maury gave a comprehensive résume of the pathology of chronic pelvic inflammation as it has been clearly demonstrated by Bernutz, by Polk, Coe and others, and by the results of abdominal section. This pathology is that of pelvic peritonitis dependent upon tubal disease—not cellulitis. Dr. Maury declared that the term chronic cellulitis is a misnomer—a pathological condition which exists only in the imagination of the physician; a term which has been productive of pernicious results in practice, and which should no longer be used in connection with non-puerpural chronic pelvic inflammation.

When this pathology rests upon such positive and abundant evidence, the question might be asked: Why re-open a discussion upon it now? Because it is evident from our Society proceedings and hospital reports that great confusion exists in the medical mind in regard to it. Dr. Byrne's case, discussed in the New York Obstetrical Society during the present year, was taken as an illustration. In speaking of such cases the great tendency to relapses in chronic pelvic inflammation was illustrated by two cases in which pus tubes were found five and seven years after attacks of peritonitis and when it was supposed the patients were entirely restored to health.

Upon the subject of treatment, Dr. Maury

admitted that by non-surgical therapeutic measures large intra-peritoneal exudations are often absorbed, and that even some tubal and ovarian inflammations entirely disappear and recovery seems complete. But this is the exception and by no means the rule.

For the radical cure of chronic pelvic inflammation non-surgical treatment fails in a majority of the cases. A great many women, suffering to a moderate degree, continue to do so in spite of the best-directed non-surgical measures, and perhaps wisely elect not to undergo operation.

As a rule the only radical and permanent relief is afforded by removal of the diseased appendages. The treatment of pus collections of course requires abdominal section.

Fatty Heart in a Young Subject.

Dr. R. Lowther, M. D., reports in the *British Medical Journal*, October 18, 1890, the following interesting case of fatty degeneration of the heart which is by no means common early in life, though cases have been reported as early as the second year.

A young man, 22 years old, apparently robust, went out for a brisk walk with two friends. After walking two miles they began to hurry, and he suddenly fell down, dying instantly. For three years he had been a footman, and was accustomed to partake largely of animal food three times a day, and of beer in considerable quantities. At the *post-mortem* examination the chest muscles were found thickly covered by adipose tissue. The pericardium had lost entirely its ordinary appearance; it showed no trace of fibrous tissue, but resembled a thin plate of purely fatty character, so friable that it tore when slightly raised. The heart was of normal size, measuring 5 inches by 3½ inches at the base, and had also undergone marked fatty degeneration. Both coronary arteries were embedded in adipose tissue, which shaded off on each side, and only disappeared in the central third of the intracoronary portion of the ventricles. The infiltration in the course of the coronaries penetrated the substance of the muscular tissue to fully two-thirds of its thickness, and these vessels were shrivelled. The heart as a whole was soft and flabby, probably from the presence of interstitial fat. Both auricles and ventricles were fully distended. The endocardium was slightly fatty, and all the valves showed yellow streaks of fatty degeneration. The jugulars also were distended, and the lungs congested. These conditions clearly showed that the heart had ceased to act in systole, death being due to syncope.

Simulo.

Simulo is the *capparis coriacca*, a Peruvian shrub, similar to that of Europe, which furnishes what is known as "capers." The seeds of simulo have been used in the treatment of epilepsy and hysteria.

The *Therapeutic Gazette*, October, 1890, says—quoting the *American Journal of Insanity*, July, 1890—that Dr. V. Paulet reports a number of cases of hysteria treated with simulo, in which it appears to have decidedly good effects. He also employed the drug in a case of ovaritis with severe pain, and one of double pregnancy accompanied by nervous palpitation, violent headache, and complete insomnia, and obtained absolute relief in both cases. As regards its use in epilepsy, he does not think that it can supplant the bromides, but that in some cases and under certain conditions, not very well defined as yet, when the bromides seem inefficacious or contra-indicated, it may be very useful. In one of his cases also chorea was apparently benefited by simulo.

The alcoholic tincture of the drug is a bad form for administration in epilepsy and hystero-epilepsy, since, if given in any quantity, the alcohol may neutralize the good effects. As regards the safety of the medicine, he considers it quite innocuous in large doses. It appears to have, he says, no effect on the pulse or respiration; it causes no depression, no mental excitement, and no disorder of digestion.

Tubercular Pharyngitis.

The *Deutsche Medizinal-Zeitung*, September 25, 1890, contains the following conclusions of Dr. Aigre, as published in *El Siglo Médico*, No. 90, 1889:

Miliary tuberculosis of the pharynx is a rare disease. There is no doubt as to the exciting causes. The affection may exist without a lesion of the larynx. The condition is anatomico-physiologically a subacute or acute tubercular pharyngitis. The lesion appears to concentrate itself upon the mucous membrane and about the glands,

and no disposition is observed to extend deeply to the vessels or between the muscular fibres. Tubercle bacilli are present, with a large number of various other micro-organisms, which take an active part in the ulcerative process. The pains in the ears which so frequently occur probably depend upon an extension of the disease to the Eustachian tube. Infarction of the cervical glands is not a constant symptom. Constitutional treatment is of no avail. Means should be used to relieve the difficulty of deglutition to permit of liberal and full alimentation, as the best treatment of tuberculosis. Local treatment fails. As palliative measures, nutritive enemata and local applications, four or five times daily, of a combination of one part of morphine with twenty-five of glycerine, or of a solution of one part of cocaine to fifty of water, or of a combination of both, are indicated.

Etiology of Croupous Pneumonia.

Mestovitch (*Bolnitchnaya Gazeta Botkina*, June 12, 1890), says that he is convinced by his experimental work that croupous pneumonia is due to a special micrococcus, and gives the following conclusions. The number of phagocytes is considerably increased in animals that are going to recover from infection with the diplococcus and the phagocytes are not present in animals fatally infected.

This fact was demonstrated by introducing the virus sub-cutaneously in a delicately prepared glass prism; after the lapse of a few hours the specimens were examined and the presence or absence of increase in the phagocytes was looked for under the microscope. Cases in which the phagocytes were increased made a good recovery; in those where the increase was absent the results were fatal.

The author has shown experimentally that the phagocytes are of mesodermic origin, and he suggests to the profession to find therapeutic remedies to increase the number of phagocytes, as the latter are the elements that eat away the pathogenic micro-organisms.

Camphor in Florida.

According to the *Druggists' Circular*, October, 1890, the Palatka *Herald* says that A. A. Beach has shown us specimens of distilled camphor from Florida-grown trees, and in his opinion the product is more profitable than any other business in the State. It can be distilled in any season of the year, and heat or cold do not effect it. The camphor tree is of very rapid growth. At four years old this tree attained a diameter of four inches and a height of eight feet, with large top and very thick foliage. The specimens shown us were much stronger than the imported article. Little time is required in distilling, the process being very simple.

Alvarenga Prize of the College of Physicians of Philadelphia.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1891. Essays intended for competition may be upon any subject in Medicine, and must be received by the Secretary of the College on or before May 1, 1891.

NEWS.

—Dr. Alfred Vogel, of Munich, well known for his work on Children's Diseases, died October 9, 1890, in his sixty-first year.

—Dr. Richard C. Norris was elected Registrar of the Obstetrical Department of the Philadelphia Hospital, November 10, 1890.

—The Trustees of a church in Philadelphia recently ordered the discontinuance of ringing the bell out of consideration for sick and nervous people in the neighborhood.

—By the will of the late Thomas C. Sloane, of New York, the Presbyterian Hospital in New York receives $10,000 and the Hospital for Ruptured and Crippled $5,000.

—It is said that Prof. Schrötter, of Vienna, is announced as a rival of Koch in the discovery of a cure-all for pulmonary consumption. Prof. Schrötter's remedy is said to be prussic acid.

—Dr. Delevan Bloodgood, the veteran Medical Director of the United States Naval Laboratory in the Navy Yard, Brooklyn, was sandbagged and robbed at 2 A. M., November 9, 1890.

—Miss Mary Garrett gave a reception in Baltimore, November 14, to ladies and gentlemen of the country who take an interest

in the Women's Medical School of the Johns Hopkins University.

—Dr. Boswell Gorham, a prominent physician, fifty years old, was shot dead by a negro named Duncan, on his farm near Lexington, Ky., November 11. No cause is assigned for the murder.

—The Russian Government has announced that at the end of five years, the decimal system of weights and measures shall be the only legal standard. Great Britain and the United States will then be the only civilized nations which use the ancient systems.

—The New York State Medical Association on October 24 elected the following officers for the ensuing year: President, Dr. Stephen Smith, of New York; Vice-Presidents, Dr. Douglas Ayres, Dr. A. T. Van Vranken, Dr. J. D. Tripp and Dr. Robert J. Meuzin; Members of the Council, Dr. W. D. Gavelock, Dr. J. B. Harris, Dr. George Douglass, Dr. Thomas B. Strong and Dr. A. L. Carroll.

—The N. Y. *World* (Evening Edition) of Nov. 7, says that a "long story" has been published at Newport, Vt., exposing the so-called "Union Medical Institute" of that place, which, it is said, had sold diplomas for $50 each in the West, and upon whose catalogue are given the names of incompetent men as professors with fictitious degrees. It is said that so great is the evidence of fraud against the promoters of the scheme that the matter has been taken up by prominent gentlemen in the State and placed in the hands of lawyers.

—The Southern Surgical and Gynecological Association, in session at Atlanta, November 13 elected the following officers for 1891: President, Dr. L. S. McMurtry, of Louisville, Ky.; Vice-Presidents, W. Gastohe, Atlanta; Dr. J. T. Wilson, of Sherman, Texas. The terms of Dr. W. E. Davis, of Birmingham, Ala., as Secretary, and J. H. Cochrane, of Birmingham, as Treasurer, were continued. The only change in the Judicial Council was the substitution of Dr. George J. Engelman, of St. Louis, for Dr. Bedford Brown, of Alexandria, Va., whose term expired.

OBITUARY.

DR. RICHARD J. LEVIS.

Dr. Richard J. Levis, one of Philadelphia's noted surgeons, died November 12, 1890, at his residence, "Cedarcroft," Kennett, Pa., after a very brief illness. After an attack of influenza from which he appeared to have recovered, he came to town on Saturday, November 8, and on Sunday he again became ill. On Monday pneumonia developed, and at 4.30 A. M., November 12, he expired.

Dr. Levis was 63 years of age, having been born in Philadelphia in 1827. He was a descendant of an old French family, one of which settled here at the time of Penn's occupancy. The father of Dr. Levis was also a physician, and his grandfather, Richard Levis, served as an officer in the Revolutionary army. Coming from a family which, for two centuries, had a representative in the medical profession, Richard J. Levis, upon his graduation from the High School, after having passed through the lower grades of the public schools, was entered as a student at the Jefferson Medical College. He was given private instruction by Professor Mütter, and devoted his studies more particularly to Surgery. In 1848 he graduated and at once commenced the practice of medicine and surgery, rapidly building up a lucrative practice. In 1859 he was appointed Surgeon to the Philadelphia Hospital. Shortly afterwards he was appointed surgeon to the Wills Eye Hospital, a position he filled actively for fourteen years, and at the time of his death was Emeritus Surgeon. In 1871 he was elected surgeon to the Pennsylvania Hospital, a position he held until 1885. In 1877, he was elected surgeon and lecturer on clinical surgery at the Jefferson College Hospital, serving this institution for ten years. He was one of the organizers of the Philadelphia Polyclinic and College for Graduates in Medicine, was President of the Board of Trustees, as well as Professor of Surgery. For twenty years he was surgeon of the Jewish Hospital. Among other positions filled by him were the Presidency of the Medical Society of Pennsylvania in 1885, and the Presidency of the Philadelphia County Medical Society in 1885-86.

On January 1, 1859, Dr. Levis became one of the Editors and co-proprietors of the MEDICAL AND SURGICAL REPORTER. His withdrawal from this connection was announced in the issue of March 21–28, 1863. He was always interested in the success of this Journal, and was a warm and respected personal friend of its present Editor.

MEDICAL AND SURGICAL REPORTER

No. 1761. PHILADELPHIA, NOVEMBER 29, 1890. VOL. LXIII.—No. 22.

CLINICAL LECTURE.

THE TREATMENT OF PULMONARY CONSUMPTION.

BY WILLIAM PEPPER, M. D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, UNIVERSITY OF PENNSYLVANIA.

Gentlemen: We discussed, at our last meeting, the question of change of climate for patients suffering with pulmonary consumption. You remember that we decided that we must be governed in the matter by the place from which the patient comes; the state of his finances, his sex and age, the stage of the disease and the places to which he or she is to be sent. This latter consideration, we remember, varies with the condition of the patient. We studied the character of life to be followed at these places of resort and the care which was to be insisted upon. I believe that the only time in the course of the disease when a change of climate is inadmissible is in the last stages of the disease. Even then we see most remarkable results in cases in which we are led, from a careful study of the condition, to expect but little. There is one consideration which we must not overlook in advising a change in a patient late in the disease. Ill-natured persons may say that we have kept the patient home until we have squeezed all the money we can from him, and then when the failure to produce a cure is palpable we send him away, to die far from home and friends. Hence in discussing this matter with a patient well along in consumption, explain the position; it is not your duty to deny the chance of improvement which exists; if the patient elects to take the chance, unless far advanced, allow him to go. Once started he should follow out every detail of hygienic care as fully as if at home.

If the patient decides to fight the disease out at home, do not neglect the slightest feature of the case; inquire into and regulate every circumstance and condition of the patient's life. No point is so small that you can afford to neglect it. First, in ordering more rest for the patient, determine if he is actually obliged to work for his living; many cases that cannot afford to go away, can lay off from work. If he need not work, have him take his breakfast in bed; not allowing him to expose himself to the cold air of a house in the early morning, when his own powers of resistance are lessened. Then he need not go down stairs until the house has been nicely warmed. He should dress leisurely, and should take as much out-door exercise as his strength permits and the weather allows; but do not allow him to become fatigued or depressed. He should lie down and rest both before and after his dinner, going out again after that meal. Do not simply tell your patient to live out-of-doors; then he is apt to overexert himself by staying out too much. He should rest and sleep, if possible, in the middle of the day. Promote the circulation and increase the tone of the muscular system by aiding and correcting digestion. Order food that will increase the resisting power of the body; so that he will cease to be so much affected by changes in the weather. He should retire early and sleep in a room which has not been used for a sitting room; the air must be pure. If it is pure in the bedroom the window had better be kept nearly, if not wholly, closed. The cold night air of a sleeping room may cause considerable irritation. Allow the patient to undress quickly, using candle light. Dress him carefully, in good pure woolens. The skin should be kept in good condition by baths and friction. A rapid sponge bath in salt water, followed by brisk rubbing, may be used; if this is too severe, rubbing oil over the body and removing it once a week, may prove beneficial. Make these

details the principal "business" of the patient's life.

Pulmonary gymnastics, in bringing in play the remaining healthy tissue and strengthening pulmonary muscles, is an excellent exercise. These must be advised whether the patient is at home or abroad. At all stages the digestion must be most carefully watched; hence make the rule never to give any drug which lessens the appetite or weakens the digestive powers. Such a drug does more harm than it can possibly do corresponding good.

There are so many signs and symptoms in pulmonary consumption that to attempt to prescribe for each one would soon develop polypharmacy. Try to grasp the most prominent and most urgent symptoms and attack them. There are from twelve to fifteen symptoms in this disease: cough, coated tongue, the pulse, the temperature, night-sweats, sleep, the condition of bowels, loss of flesh, pain in the chest, etc. Remember that no one remedy is in the slightest degree a specific. Since the discovery of the bacillus tuberculosis and its close relation to this disease, there has been no discovery of a mode of treatment which is more efficient in its results than was possessed before. We cannot destroy or even weaken the vitality or virulence of the bacillus, except by increasing the resisting power of the patient, producing more healthy cellular action, restricting the seat of the disease and restoring tone.

In considering the use of antiseptics or parasiticides, we know that if we could catch the bacillus and dose him well with bichloride or arsenic, we might do him extensive harm; but situated in the lungs of an ordinary patient, he can well defy us to attempt to drive him from that position. Inhalations do not go deep enough nor are they concentrated enough to effect much change. Experiments are being constantly made with this or that agent which kills or injures the bacillus, in the attenuated vapor to which it becomes reduced before it reaches his locality, with impunity of further effect upon the patient; but as yet we have no such drug on which we can rely.

Remembering that unfortunately there exists no specific curative remedy, we naturally seek for further means of prevention of the spread of this dread disease. I will only speak of two points in this connection. One is the importance of destroying the sputa, or at least its infectious properties, immediately on its expectoration. Have the material received in some vessel which contains a powerful parasiticide; or have it burned or buried at once. The second question is one which fascinates the medical profession; it is the endeavor to utilize our knowledge of the bacillus to render the system less susceptible to its deposition. Possibly this is to be accomplished by inoculation with attenuated tuberculous virus; on the principle that this would produce the same result that the virus of vaccine disease does in relation to small-pox. It is going to be a serious business if the future parent is to have his child inoculated with the virus of all infectious diseases, to preserve him from the course of diseases to which our present children are exposed. But if it is proved that each disease has its preventive inoculation, similar to small-pox, this may become a question which the parent of the future may be called upon to decide. At present we have no direct evidence that attenuated tuberculous virus will make the human species less susceptible; nor do I have much hope of such a possibility. Small-pox and phthisis are such different diseases that analogy between them is not striking; still many observers throughout the medical world are working over this point, on the lower animals, and we shall probably hear their conclusions in the future.

Undoubtedly there is a preparation of the system before the successful deposition of the bacillus takes place. Depressing influences have been at work; possibly some local catarrhal affection exists in the lung. The disease attacks only those who are not at the best state of resistance, while small-pox on the other hand attacks the strong and weak alike, another point of difference in analogy. Prevent this susceptible condition by increasing the vigor and resisting power, first by hygiene, secondly by attention to the digestion and assimilation. Often the remedies or treatment for atonic or irritative dyspepsia may be indicated. Keep this thought uppermost; that the digestion must be kept in the best possible state; if you do not injure it by the use of additional nutrients, try such things as fat, in cod-liver oil, plain or emulsified; but the oil will do no good unless it is well borne. At least as much food must be taken during its continuance as before its commencement. The amount must be decided by the patient; a teaspoonful that is pleasant is better than two teaspoonfuls that nauseate. But if a

tablespoonful can be well borne at a dose so much the better. If other preparations prove offensive, try the oil in combination with an alkaline salt, as the hypophosphites or lactophosphate of calcium; this introduces an element of nutrition which also favors the liquifaction of expectoration. Again cod-liver oil with wild-cherry bark suits many delicate or fastidious stomachs; here is a tonic and soothing expectorant at the one time. The markets are filled with preparations of this oil in combination with almost every known substance. Many of them are honest. I prefer those with lime as expectorants; with a tonic or with some digestive agent.

Iron is indicated in many cases, but frequently its use is attended with disappointment. If it serves to lessen the food-taking powers of the patient stop it at once. Often where cod-liver oil is badly borne iron is of service and *vice versa*, cod-liver oil may replace iron nicely.

Always make a study of the temperature in every case. It often happens that it must be checked. The best means of doing this vary; it depends on the condition which is making the temperature high. If there is active irritation around the seat of disease, not merely the infective poison of the system, but an acute catarrhal inflammation with exacerbations of temperature, this is best treated as an attack of catarrhal pneumonia. Rest in bed, counter-irritation, mild sedatives and antipyretics should be strictly adhered to until the temperature comes down. Antipyretics should never be given and the patient still allowed to go about; it is not philosophy or common sense. If the temperature is kept down with these drugs and the patient goes about, he is still more exposed to the causes which have produced the rise of temperature. If the inflammation cannot be removed, but there are occasional exacerbations when the patient is acutely sick, restrict the diet and apply dry cups over the seat of the morbid process. Where the fever is continuous, with no acute exacerbations, but still is rather high, antipyretics may be included cautiously in the regular treatment. Quinine can be used, provided it does good in moderate doses; that is, distinctly checks the temperature, when four, six or even eight grains a day are given. Under these circumstances there is no harm in continuing it for weeks at a time. Very small doses of antipyrin with quinine often produce marked benefit. Sufficient of this drug should not be given to produce a lowering of temperature within an hour or so, for although we know the power of these newer drugs to produce a lowering of temperature and nothing else, still under the use of antipyrin, I have always found the patient a little relaxed and a little more liable to catch cold than he was before. Hence only endeavor to check temperature slightly with such drugs; three grains of antipyrin with two of quinine twice a day are often excellent. Remember that inflammation is producing the fever, and that in keeping the surface temperature down too much, you may be injuring the condition of the patient. Relieve the temperature by hygiene, by diet, by exercise and by fresh air. Aconite given late in the day may be excellent; a single drop every hour for from five to eight hours, while producing no depression or relaxation, may be of inestimable service. Cool water externally, with its effects carefully studied, may be tried. A cool bath daily, and followed by friction is useful in some cases.

The cough nearly always requires attention. Usually it is poor judgment to attempt to stop it while the disease lasts; and after spots of broken-down tissue appear in the lung it is far better that it should not be checked. When, however, it is evident that there is a needless amount of effort expended by the patient; when he is racked by excessive paroxysms, then it should be controlled. The use of inhalations for this purpose is far better than the use of drugs by the stomach; for it is necessary to blunt the nerves of respiration, and the drug which does this, also affects the sensibility of the digestive tract; hence it is apt to impair the appetite. Use a sedative, antiseptic, alterative inhalation, which, while not strong enough to disinfect the lungs, fills the bronchial tubes with purified, disinfecting air. This does good while it relieves the troublesome symptom. Creasote, turpentine, terebene—a more volatile derivative of turpentine—preparations of iodine, chloroform, ether, conium, are all local sedatives capable of producing the proper results. The forms of apparatus for inhalation are legion. I prefer a simple jar, with ample cork; through the cork insert two tubes, have the material to be used placed in the jar and allow the patient to draw air through the shorter tube. This apparatus can be made into a portable form by using short bent tubes, corked at each end, in which is placed sufficient of the preparation for one dose. A

number of these tubes can be carried in the pocket; when the patient feels that a spell of coughing is coming on, he can open a tube and inhale its contents. A fair prescription for this purpose is the following:

℞ Creasoti . . . . . f℥i
Tr. iodi . . . . . f℥iii
Chloroformi . . . . . f℥ii
Alcoholis . . . . . q. s. ad. f℥i

Sig. Inhale ten drops.

Carbolic acid can be substituted for the creasote in somewhat smaller doses. Thymol, a highly volatile antiseptic, agreeable in odor, can be tried; tincture of conium can replace the chloroform; these are merely suggestions for your own improving. Ammonia developed by the action of a weak acid on the carbonate of ammonia makes a useful form of inhalation; to this you can add any volatile substance you think indicated. If there is excess of secretion, you can employ some astringent, such as zinc. In time, as your practice grows, you can call in, if you think advisable, the use of compressed air to drive these inhalations farther into the lung substance.

Occasionally, for a variety of reasons, you feel called upon to prescribe a cough mixture; the inhalations may be of no service, or inconvenient, or inaccessible to the patient's use. Then remember the cardinal rule of prescribing, that nothing shall be given that impairs the appetite. Use the simplest expectorants in the smallest possible doses. Given in syrup form, the expectorants are apt to be somewhat nauseating. I prefer some such pill as the following, which relieves cardiac excitement in case of fever, is rather expectorant, and allays irritation.

℞ Ext. opii . . . . . gr. iii–v
Pulv. digitalis . . . . . gr. xv–xxx
Pulv. scillæ. . . . . gr. xv–xxx
Quiniæ sulph. . . . . gr. xxx

Div. in pil. No. xxx. Sig.: one, two to four times a day.

If the squills nauseates, it can be subsequently left out. In place of the opium if it is found to be too constipating codeia can be given. Ammonium carbonate or muriate in simple brown mixture is excellent when the expectoration is thick and scanty. It makes an agreeable sedative and laxative.

Some cases admit of the application of remedies direct to the diseased spot. When the process is limited to one apex, remaining obstinately there: neither spreading nor shrinking and the patient is in good general health, it is admissible to insert into this circumscribed area by means of the hypodermic needle certain remedies. Creasote, thymol, iodine in small amounts at regular periods may relieve the symptoms most markedly. It is not a radical measure; there are no complications; expectoration is allayed. Irritation apparently subdued and general good results follow. Unfortunately the cases are rare which admit of this treatment; the process must be sharply circumscribed, easy of access and the injections must be rather weak and frequently repeated.

In a certain group of cases, creasote is well borne by the mucous membrane of the stomach; here it can be used for its constitutional effect; combined with the oil of eucalyptus in capsules it is often excellent. Constitutional treatment which will favor the appetite, be antiseptic and help to render the lung a less favorable nidus for the bacillus, can all be added in one prescription, such as the following, which is not unpleasant to take.

℞ Creasote . . . . . 32 drops
Comp. tincture of gentian . . . . 1 fl. ounce
Comp. tincture of nux vomica . . 2 fl. drachms
Whiskey or brandy . . . . . 2 fl. ounces
Glycerine . . . . . 1 fl. ounce
Sherry wine . . . . . 1 pint

M. S. Dose: a dessertspoonful to two tablespoonfuls.

This lecture I have intended rather as a hasty glance at a great subject than a careful discussion, complete in its details.

COMMUNICATIONS.

HYDROPHOBIA.

BY HIRAM CORSON, M. D.,
CONSHOHOCKEN, PA.

Hydrophobia is a disease which has attracted much attention, and is at present one about which opposite opinions are held. Some persons deny that it ever exists in the human system, while others, as M. Pasteur and his followers, believe that human beings are as readily and fatally affected when bitten by a rabid dog, as another dog would be if bitten. Not only so, but that, by inserting a portion of the brain or spinal marrow, taken from a rabid dog, into the body of a human being—as is done in inoculating with smallpox virus—persons may be protected from rabies. Such protection is offered to all at

the "Pasteur Institute" in Paris; and now, persons if bitten by a dog supposed to be mad, resort to this means of safety. In New York, too, such an Institute has been gotten up, and persons who chance to be bitten, even by a healthy dog, flock to the "Gibier Institute" for protection; for the opinion has been advanced, by those "cultivating" the virus and the fears of the public, that rabies may accrue from the bite of a dog not rabid, and that "even a rabid dog may communicate it to others and afterwards return to his normal state of health." And yet more, Dr. Gibier says: "I have experimentally demonstrated that birds, and notably hens, which contract rabies, may communicate it to mammifera, to which it will prove fatal, though the hens may spontaneously recover." Strange talk this by a man who writes: "I know of no authentic case of rabies that has been cured in man." The hen, though, has rabies, communicates it to a man, or cow, or horse, to which it proves fatal, but the hen, without the aid of the Gibier Institute, recovers.

It is not my intention in this paper to call in question the practice instituted by M. Pasteur, but to refer to the great increase of reputed hydrophobia cases since he commenced to inoculate persons in order to protect them. No one who has read of his practice and its results but must have been forcibly impressed by two facts: first, that reputed cases of rabies have astonishingly increased since he commenced his preventive and curative operations; and, second, that deaths from the disease, or its treatment in the hands of inoculators, are greatly in excess of the mortality prior to that time.

In the MEDICAL AND SURGICAL REPORTER, July 5, 1890, page 24, it is stated, "Of persons treated in the Pasteur Institute from May 1, 1888, to May 1, 1889, there were 13 deaths, or one death for every 128 treated."

It may be interesting to turn from the doings of M. Pasteur, and to inquire what is known of hydrophobia in our own country. There exists in the mind of all classes of people, everywhere in this country, great dread of mad dogs and of hydrophobia; a dread engendered and spread abroad by the newspaper reports of the horrible sufferings of the victims of hydrophobia; their convulsions at the sight of water or on attempts to swallow it; the distortions of face; the whining, howling and slavering, like dogs; and their being smothered under feather-beds, or bled to death to prevent them from injuring others.

On October 18, the newspapers reported that a man in Atlanta, Georgia, was so violent while under the disease, "that six men could not hold him down under a bed, but when eight men got on it, they were enabled to overcome him"—which meant smothering him, I suppose. Reports of bleeding such patients to death have been common from my earliest recollection. These things are known to every child of ten years; and is it strange, then, that the disease is regarded with peculiar horror?

When quite young—seventy years ago—a lad whom I knew "died mad," the people said. He had been bitten by a neighbor's dog which was immediately killed. It affected me greatly; so after my graduation in 1828, I applied to that museum of knowledge, Prof. John Redman Coxe, for information in regard to this disease, and from that time to the present I have been mindful of it. Prof. Coxe told me of the many kinds of creatures liable to the disease—hens were included—but the wise old man did not then know that a hen could have the disease, could infect other animals—even man, and then rid herself of it, and become food for rich citizens. That was reserved for our "Institute" to discover.

Mad dogs are not often met with in our State, or if they are, and persons are frequently bitten by them, then either the virus is nearly harmless in the human being, or we have better means of prevention than M. Pasteur's inoculation measures.

Why do I hold this opinion? Because during seventy years, with my eyes and ears wide open to see and hear all that is known on the subject, there is no record of a single well authenticated case of hydrophobia having occurred within our county, and only two supposed cases—cases of false hydrophobia perhaps—though many hundreds have been bitten by dogs said to be mad, during that period of time. If so many were bitten, how did they escape, when there was no Pasteur or Gibier to inoculate them? During nearly the whole of the present century, though the disease has not received any attention from medical teachers in our medical colleges, yet intelligent physicians throughout the State, acquainted with the teachings and experience of the justly celebrated English veterinary surgeon Youatt, practiced his teaching, and when persons who had been bitten presented themselves,

excised or cauterized the wounded part, assured the patient that he was in no danger, and no bad results followed. But physicians were seldom asked to prescribe for such patients. There were specialists then as now.

For more than a century there has been known, in the eastern part of Pennsylvania, two mad-dog doctors, to whom hundreds of people, bitten by dogs supposed to be rabid, have resorted for protection from hydrophobia.

"Dr. Stoy's Remedy for Hydrophobia" was known in the latter part of the last century, it is said, throughout Pennsylvania and in parts of the adjoining States, and was regarded as a certain preventive of hydrophobia. The following history was given to me a few years ago, by a friend. "Dr. Wm. Stoy was a native of Germany, who came to this country before the year 1800, and settled in Dauphin County, Pa. He devoted much of his time to the study of chemistry. Soon after his arrival he petitioned Congress for the grant of a large sum of money, on condition that he should promulgate his great discovery, for the cure of hydrophobia, for the public benefit. Failing in this, he then offered his recipe to the heads of families at a fixed price, binding them, however, under oath not to divulge the secret, or to use it for the benefit of others. After his death in 1809, his widow Elizabeth Stoy, took out a patent for this medicine. One who bought a "right" kept his oath so religiously that he allowed a neighbor who had been bitten by a rabid dog to die rather than violate his oath. Among the papers of one who had purchased the recipe, it was found after his death, written in German. It was translated into English, and is as follows.

"Take one handful of dried Anagallis Arvensis;[1] pour on it two quarts of good beer in an earthen pot; boil it over a slow fire to half the volume; strain through a cloth; add of vermilion treacle two drachms. It must be well stirred up and mixed in liquor. Dose for a man, one pint, to be taken in the morning, fasting. If any signs of hydrophobia appear, the medicine should be taken two or three mornings in succession. The dose for a female, three to three and one-half gills, for children according to age." Many years ago the following was published.

"MAD DOGS.—THE STOY REMEDY."

"In 1819, one Valentine Kectering, of Dauphin County, communicated to the Senate of Pennsylvania a sure remedy for the bite of any mad animal. His ancestors had used it in Germany two hundred and fifty-six years ago, and he had always found it to answer the purpose during a residence in the United States, of fifty years. He only published it from motives of humanity. This remedy consists in the weed called chick-weed—a summer plant, called by Germans and Swiss, Gauchnell Rother Mayor, or Rother Huehnerdarm, in England called Red Pimpernel; botanical name, *Angelica Phœnicia*. It must be gathered when in full bloom, in June, dried in the shade and pulverized. Dose for a grown person is a teaspoonful (in weight a drachm and a scruple) at once, in beer or water. For children, the dose is the same, but must be applied at three different times. It can also be put on bread and butter, or given in honey or molasses. The Rev. Mr. Muhlenberg said that in Germany thirty grains of this powder are given four times the first day; then once a day for a week; while at the same time the part is washed out with a decoction of the weed, and the powder strewed on it. Mr. Kectering said, that he, in all instances, gave but one dose with the most happy results. This is said to be the same remedy through which the late Dr. William Stoy effected so many cures."

I may remark here that he speaks of the plant as Angelica Phœnicia; while in Stoy's recipe it is spoken of as the *Anagallis Arvensis*, which is the botanical name of the red pimpernels. They evidently used the same plant.

During the long time in which Stoy and others used this remedy another man, or rather family, in Montgomery County, were celebrated as "mad-dog doctors." "Dr. Fry," the great mad-dog doctor, was a familiar name to me full seventy years ago; and as hundreds of people in this and adjoining counties have resorted to them for protection and cure, and always, it is reported, with success, allow me to speak of them. Even within my circle of practice many people have gone to him, and not a single one was a victim to the dreaded disease. As many of the persons were members of families with whom I practiced, I had frequent opportunities to see the printed directions, which are as follows.

"First wash the bite of the dog with warm

[1] This is the common pimpernel.—ED. REPORTER.

vinegar; then apply the blister to reach a little over the sore; tie it up; let the blister lay on for ten hours; when it has drawn a full blister, then open the blister and keep it off. Then take cabbage leaves and make them warm on the stove and soft in the hands; then apply them and let them lay on for two hours; then apply fresh leaves, and so continue till four days have expired; then apply the same blister again; let it lay on three or four hours; then take it off and dress with cabbage leaves, as before mentioned until fourteen days have expired; then spread a rag with sheep's tallow twice a day applied till it is healed."

"Medicine for hydrophobia. Take all this powder and put it in a new earthen pot; pour one pint of porter on it, and set the said pot on a low or moderate coal fire; let it boil down to one-half; then strain it through a clean linen cloth, hot out of the pot, into a pewter dish; then take the medicine out of the bottle and mix it well together, and when it is well united, then give to the patient one-fourth of the dose in the morning, fasting, lukewarm, and the remainder, the next four mornings in succession, as before mentioned, and the patient after taking each dose, must fast three hours, and fourteen days thereafter shall drink no water, not to meddle with water and not to see any water, and not to eat any pork or pies baked with lard, except butter, not to eat any fish or water-fowl that swims in water for fourteen days thereafter, and not to go in the rain or where it is foggy.—W. S. Fry; near Lansdale." "Dr. George S. Fry, Catharine Fry."

The above mode of treatment has been strictly followed by a great many people in our county and the adjoining ones.

Since Dr. Gibier opened his Institute in New York, and his reports have so excited the people's fears that cases of hydrophobia have greatly increased, I felt a desire to talk with our mad-dog doctor and learn from his own lips what his success has been. So, a few weeks since, I rode to Lansdale and visited him in his little store. When introduced to him by the friend who was with me, I said to him that I had come to see him in relation to his treatment of hydrophobia; the number treated by all the members of the Fry family, and their success in treatment. He quickly replied: "We never lost a single patient." "How many have you treated?" "More than three hundred." "Have you ever treated one when the disease was upon him?" "Yes! More than one, and they recovered." By this time he seemed to get a little suspicious that I had some secret motive for asking questions, and he became somewhat reserved. I then said to him: "I do not want to know anything about your remedies; and, to be frank with you, I have no belief in their possessing any medicinal value in preventing hydrophobia, but possibly great value, when conjoined with the assurance which you give the patient in removing the perturbed condition of the nervous system, and inspiring them with a firm assured hope—confidence I may say—of protection." This seemed to remove all reserve on his part. "Doctor, are you not in error in saying that you have never lost a patient, did not you lose young Yerkes?" "Ah! he died; but it was his own fault; the three boys were all bitten. The other two followed the directions for the whole fourteen days; but that young fellow, after being in the room two days, jumped out of the window and went to swim with neighbor's boys." The boy's uncle had told me that the boy had fully followed all directions, but I pressed Dr. Fry no further, but said to him: "I have been told that you use the same remedy that was used by Dr. Stoy—the red pimpernel." "Yes! we use *that;* but we have five other ingredients." He narrated a severe case of the disease to which his father had been called, and which he cured.

The readers of the REPORTER will doubtless ask, why I have thought it necessary to speak of the unscientific practice of these non-professional men, and especially as I do not believe their remedies have any medicinal effect of value in the treatment of the disease?

The object in treatment should be to prevent the occurrence of disease, and, if present, to cure it. It appears that many persons have lost their lives after treatment by Pasteur, yet he boasts of great success. From his own statement, one out of every one hundred and twenty-eight died, but the *Journal de Médecine*, March 30, contains a list of ninety cases who have died after receiving the so-called "preventive treatment." In addition to that, it is said to be a fact, that since it has been practiced, there has been an actual increase in the number of deaths from hydrophobia in France. And a similar increase is said to have been noted in New York as a result of the excite-

ment caused by the existence of the Institute there.

Now, everywhere in this State the confidence of the masses in the power of the mad-dog doctors seems to be so great, that even when bitten by a dog supposed to be rabid, their nervous systems are not so disturbed as to lead to fatal results. Dr. Fry says that out of more than three hundred who were bitten and treated by him, not one was lost by hydrophobia, after their treatment. Pasteur has lost many—Fry not one; or, if any, only one. It is seventy years since the little boy, Rossiter, died from what was called hydrophobia; and I do not know that he received Fry's treatment. I know of no other one in all these years, anywhere in the county—though scores have been bitten—who died from rabies, whether treated by Fry, or by physicians, or not treated at all.

I wish to be fair towards the Pasteur Institute, and therefore regret that I have not access to their reports up to this time. In the MEDICAL AND SURGICAL REPORTER of October 25, 1890, which has just come to me, I find "Hydrophobia Notes," from which I gather that a patient died in the Bellevue Hospital with his arms tied to the side of the bed and four men holding him, while the physician dosed him with morphia and gave him chloral. Gibier says it was a genuine case of hydrophobia. I have no knowledge of the case save this. Whether the man was bitten at all, and what the symptoms were which made it necessary to tie him to the bed and have four men to hold him, I do not know; but I do know that the physicians of that hospital should not have allowed such a report to be sent abroad, through the newspapers, and even Dr. Gibier's declaration that it was a true case of hydrophobia may be honestly questioned by those who are well read in the history of hydrophobia. In the August number of the *North American Review*, there is a paper on "False Hydrophobia," by Dr. Wm. A. Hammond, Surgeon-General, U. S. Army (retired), in which, on pages 170 and 171, he writes, "Several years ago I saw, in consultation, a policeman who had two or three days before been bitten by a dog, and whose comrades had frightened him by their inquiries and suggestions. He was then in the Park Hospital, in the city of New York, held down by four strong men, and snapping like a dog at every one who came near him. At the sight of water, he became intensely excited, and went through a series of fearful contortions of his face. He had visions of mad dogs trying to bite him, and was hiding his face under the bed-clothes. Every attempt to make him drink a glass of water produced a series of spasms and howls of anguish that alarmed the neighborhood. The short period of the incubation, the extreme violence of the symptoms, and the fact that he had drunk a glass or two of brandy without difficulty, gave me at once a clear idea of the case. I filled a tumbler with ice-cold water and holding it to his lips told him in a commanding tone to drink it immediately. He took the tumbler in his hand and drank it as readily as he had ever done in his life. The spell was broken, and a few minutes afterwards he got out of bed declaring that he was perfectly well, and he went to duty the next morning. It is quite within the limits of probability that if he had been allowed to go on for two or three days in the way he had begun, death from exhaustion would have been the consequence.

"That death may result from false hydrophobia is as well established as any other fact in medical science. There is a case on record of a man who died in fifteen hours with all the symptoms of hydrophobia which had ensued on a violent paroxysm of anger."

Dr. Hammond gives other most interesting cases of false hydrophobia, which I must leave for the present, but which ought to be known to all physicians, so that when standing by the bedside of such a patient they should not require the man to be bound to the bed and have strong men to sit on him, or smother him under the bed; but should be able to distinguish the false hydrophobia from the true—if there be a true—and use means to cure him. And let me add here, that whenever the patient exhibits very violent symptoms, it is almost positive proof that it is the false kind. I have received from my friend and neighbor, Dr. Oscar Leedom, an account of a case to which he was called a few years since, which may be interesting to practitioners.

"I was called one evening in the fall of 1882 to see a young man supposed to be suffering with hydrophobia. Upon arriving at the house I found the family in a great state of excitement. His mother, an intelligent and honest woman, told me that he had been bitten by a dog a short time before, and that she feared he was getting hydrophobia. I allayed her fears as much as possible, and asked to see the patient. I

found a young man of twenty-five years in a dark room, while two strong neighbors were holding the door. At my request they opened it, when I found the patient going round and round the room on all fours, like a dog, and imitating a dog's gait and antics as nearly as possible. He continued this for some time, then suddenly darted out of the room to an adjoining one, still going on his hands and feet. I then had him caught and held by the two men, while I assured him that he had no hydrophobia whatever, and that he must quit his antics, or I would have him held under the pump and have the cold water pumped on him. This quieted him somewhat, but on releasing him he darted off again, into the back room, and began to go round on his hands and feet, dog-like, again. I then had the two men to seize him and drag him into the kitchen where stood the pump, where I determined to pump water upon him. This brought him to his senses, and he begged us to let him go. I told him I would only let him off, on his promise to do as I bid him. To this he agreed. I then gave him one-quarter grain of sulphate of morphia, and told him to go to bed. He swallowed the medicine, and then hurried up stairs to bed. There was no more trouble with him that night, and next morning he was well and ready for work. So ended my case."

How applicable here are the remarks made by Dr. Hammond in closing his case: "If this man had been allowed to go on for two or three days as he had begun, that death from exhaustion would have been the consequence." Suppose that Dr. Leedom, instead of assuming a tone of authority and determination, had, as seems to be the usual custom with physicians, been afraid to go near to the patient, had gotten some one to get a cup of water—after he had him secured—and had asked him to drink it; would he not have shrunk from it, have been thrown into spasms as is so usual in such cases, and it have resulted in his death?

As we have looked somewhat into the doings of the Paris Institute, let us turn our attention to Dr. Gibier's Institute in New York. In the MEDICAL AND SURGICAL REPORTER it is stated that thirty-nine persons were bitten by animals supposed to be rabid; that many of the animals were not known to be rabid; indeed there was not a single case known to be so. That those who were bitten were badly frightened people who had heard of Pasteur's treatment is apparent from the fact that many of them came from far away States. In the cases of the boy of twelve years, bitten two weeks before he reached the Gibier Institute, and the old man of 70, bitten twenty-eight days previous to reaching there, Dr. Gibier refused to treat them. Why? Fearing, we may believe, that the incubation period was nearly completed and that, if so, his remedy might fail and thus be discredited. So, instead of inoculating them—a most fortunate escape for them—he pronounced them doomed; yet they remained well. But suppose instead of refusing to treat them, he had inoculated them, and they had gone home and remained well; then they would have swelled the lists of cures, as hundreds of others like them have done. It is apparent that his confidence in his means of prevention is very weak. As for curing one already "mad," he makes no pretense to do that, but honestly says, he "has never known a case of rabies to be cured."

In the August number of the *North American Review* in a paper entitled: "The Pasteur Treatment," by Dr. Paul Gibier, Director of the Pasteur Institute in New York, he writes: "Some die fifteen or twenty days after having been bitten, others only after a few months or even years." Dr. Hammond in the same number of that Review, in a paper on "False Hydrophobia," says: "Hydrophobia rarely supervenes until after a month has elapsed after the bite; and in my cases the time has varied from twenty-five days to four months." With these facts before him, and the testimony of the celebrated and experienced veterinary surgeon Youatt, that "the excision of the wounded part, at any time prior to the attack of rabies, would insure the safety of the person," that Dr. Gibier should have refused to treat them, and to declare that they were doomed, is not readily explained, save by the theory that he had no confidence in his means of prevention. Now let us consider what has taken place all over our country in relation to persons bitten by dogs—I will not say mad dogs—as rabid as were those by whom Dr. Gibier's patients were bitten. In the country nearly every family keeps a dog; many families two or more, and country physicians are very liable to be bitten. It has been my fate many times—three times in one week I was attacked, and two of the bites received drew blood from me. So it was no doubt with hundreds of others in this State. But we did not kiss the mad-

stone, or go to the mad-dog doctors, and fortunately we had no "Institute" where we could be inoculated, so we just went on as though nothing had occurred, or as though we had never heard of danger from the bite of a dog; and yet who ever heard of the death of a country doctor from the disease called rabies? There have been thousands of persons bitten by dogs in Pennsylvania during my seventy years of observation, in relation to cases of rabies; and yet, how very few deaths from hydrophobia, true or false, have we heard of. How shall we explain this, seeing as we now do, that hundreds, yea thousands, are flocking to the Institutes, in New York and Paris, who have been bitten by mad dogs—or by healthly dogs—whose bite is, according to Dr. Gibier, capable of causing rabies in mammifera, save by saying that mad dogs are very scarce; that bites of healthy dogs cannot cause rabies; that no such case has ever occurred; and that, here, when a person was bitten by a dog and feared that he was rabid, he went at once to a physician and had the wound excised or to Dr. Stoy, who, according to the report of Kectering, used a remedy which had been successful in every case during two hundred and fifty-six years, or to Dr. Fry, who, in hundreds of cases treated by him, had never lost one, or only one.

These were the means used by many, and yet not by one-tenth of those bitten; the great majority did nothing, but like the country doctors, gave themselves no trouble about it.

But let us look into Dr. Fry's "Institute." In it we see, not thirty-nine, but three hundred or more, men, women and children, who have been bitten by dogs (I will not say rabid dogs—as rabid, though, as were the dogs by which Dr. Gibier's patients were bitten), and whose fears have brought them to this unscientific man, of whose great power to save them they have often heard. They came with strong faith that as soon as they were under his treatment they would be safe. He does not terrify them—turns none away through fear that they may have nearly reached the end of the incubation period, but with a strong confidence in his measures, begotten by a half century's unvarying success, inspires them with a joyous hope and from under his hands they pass away relieved from fear and protected, one and all, from the dreaded rabies.

And, now, what has been the outcome in all Pennsylvania to those who took no measures to protect themselves, others who sought relief from physicians, and those who trusted themselves to the mad-dog doctors, Stoy and Fry? I answer, as I think physicians throughout the State will, that we have scarcely had a well-authenticated case of true rabies in all this populous State. But alongside of what has happened here, how frightful are the reports which come to us of deaths under the inoculation measures in Paris. Do I believe that because Fry and Stoy lost none and Pasteur many, very many, by death, that the medicine given by the former, and the apparently absurd precautions and course of diet and conduct prescribed by him were necessary? I believe the medicine, and all else advised, were entirely useless, save only as they served to allay the fears of the patients and confirmed them in a belief of their own safety. If, then, my opinion is correct, that the medicine had no value as an antidote to the poison of rabies, it must be plain to my readers that the dogs—the hundreds said to be mad—were not so; and this is the reason why the hundreds—thousands of persons, I might say—bitten by dogs in Pennsylvania during the past century did not become victims to true hydrophobia, though a few may have fallen victims to false hydrophobia—an affection so ably described by Dr. Hammond, who is the peer of physicians of the "Institutes" in this or any other country.

I believe there is a disease called rabies, to which dogs are liable, and I always heretofore *have* believed that it could, by the bite of a rabid dog, be communicated to the human system; but now it seems as though false hydrophobia may yet include all cases which may happen in human beings. Time and more careful observations than have heretofore been made will soon reach the truth in this matter. Until then I hope that physicians will earnestly investigate the subject, and that all medical colleges will have it embodied in their course on the "Practice of Medicine," and that Pennsylvania will be saved from the dangers which would follow the erection of a Pasteur Institute within her borders.

It is said the mark of weak medical men is the indiscriminate use of stimulants in fevers, a ready resort to narcotics and sedatives, treatment of symptoms only and a fondness for new drugs and high-sounding names.

ATMOSPHERIC TRACTOR.

A NEW INSTRUMENT, AND SOME NEW THEORIES IN OBSTETRICS.[1]

BY PETER McCAHEY, M. D.,

PHILADELPHIA.

On December 20, 1848, and February 7, 1849, Professor J. Y. Simpson, of Edinburgh, described before the Obstetric and Medico-Chirurgical Societies of that city, a device for assisting labor which he termed an Air-Tractor. In its first form it consisted of an ordinary metallic vaginal speculum, fitted with a piston and coated with leather at its cone-shaped end. This was finally discarded for a short brass syringe attached to an inner cup of horn, which was covered with an outer cup of rubber. The mouth of the inner cup was covered with a diaphragm of wire, within which was a piece of sponge or flannel, "with the view of preventing injury to the scalp and not allowing it to be elongated and drawn up into the vacuous space in the manner which we see occurring in the skin in the common operation of cupping. Such an instrument when fixed to the palm of the hand lifted readily a weight of thirty or forty pounds. This Dr. Simpson showed by experiments before this society." (Simpson's *Obstetric Memoirs:* Philadelphia, 1855.)

Professor Simpson in his eloquent and thoughtful manner pointed out the dangers incidental to prolonged labor and also to the use of the forceps, and declared his belief that the air-tractor would eventually prove a substitute for them in many cases. He explained the well-known principle of atmospheric pressure upon which it was based, and referred to the many instances in which the same principle is employed by the lower animals, such as the leech, the limpet and the cuttle-fish, to secure their food or to move about. He added that while the Tractor had been used in several cases "with results answering his best expectations, it admitted of much further improvement in construction, in mode of application, in working and in other details."

Unfortunately for humanity, it did not work, and was finally abandoned by its gifted inventor. So complete was its failure that, although Dr. Simpson lived until 1855, he did not publish any more in reference to it, nor is it mentioned even as a curiosity by any of his English or American contemporaries or successors.

Dr. Horatio R. Storer, the American editor of Professor Simpson's *Obstetric Memoirs*, stated in 1855 that "the chief objection to the practical use of the tractor is doubtless in its application, and not in its power of traction; the large size of the caoutchouc cup rendering difficult its introduction within the maternal passages. To this may be added the difficulty of keeping the valves in working order. Dr. Simpson, however, holds, and we believe, correctly, that if ingenuity could suggest any form of tractor which umbrella-like should be folded into a little space for introduction and afterwards expanded over the scalp and then exhausted by the attached piston, it might supersede the forceps in many cases. . . . When we revert to the history of some of our most useful obstetric instruments (contrast, for example, the rude form of the early forceps with their present improved construction), we have reason to hope that the tractor may at some future time be so far improved as to be easily applied and used."

Dr. Simpson's tractor failed partly because of the difficulty of working an air-pump within the vaginal canal, and partly because of defects in the construction of the cup.

If I had read of his failure, I would probably have considered it hopeless to try further experiments in the same direction.

In common with a great number of others, I had not heard or read of them until after I had, as the result of independent inquiry and over five years of study and experiments, constructed a new and entirely practicable Atmospheric Tractor. On learning a few weeks ago of Dr. Simpson's efforts, I was at first disappointed to find that I was not, as I had supposed, the first to suggest its use. After further consideration, however, I think it will be admitted to be as great an honor to have succeeded where so brilliant an obstetrician and so able a man as Professor Simpson failed, as to have evolved the original idea.

I began the study of the subject in 1885, in the hope of finding some means of preventing the annoying retrocession of the head. I at first endeavored to secure this by a modification of the old abdominal bandage; but the forces driving the head back were stronger than any power that could be exerted with the bandage. This

[1] Report of a demonstration before the Philadelphia County Medical Society, November 26, 1890.

led me to think that there must be some other agency producing the retrocession besides muscular resistance and bony rigidity. No doubt every physician has observed many cases in which the head retroceded, not only before the pelvic muscles could act, but even before it reached the pelvic floor. Further reflection and observation led me to the conclusion that atmospheric resistance is the principal factor in producing this retrocession and is in many cases a potent factor in delaying delivery.

When the uterus contracts round the body of the child, it expels all or nearly all the air from the uterine cavity, just as, when the hand firmly grasps a ball, the air is squeezed out from between it and the palm and fingers. The abdominal muscles then contract, forcing the fundus of the uterus down and pushing the child's body and head into the pelvic cavity. While this is occurring, there is a partial vacuum in the upper part of the uterus or that portion of it which is firmly contracted around the child. When the abdominal muscles relax, the pressure of the external air, and the expansive pressure of the air in the vagina are exerted against the head and shoulders of the child, and force it back until sufficient air enters the uterus to overcome or break up the vacuum and elevate the fundus. A similar process can be observed every day in the use of the ordinary ball-valve cupping apparatus. Pressure on the top of the ball drives out a certain quantity of air from the cup, but in a moment or two the expansive pressure of the remaining air forces the ball into its usual globular shape. The advantageous results which have been obtained by moving the forceps from side to side in cases where extraction is difficult, can readily be accounted for when it is realized that such motion permits the free ingress of air from the vagina and breaks up the uterine vacuum.

That the retrocession of the head is due to atmospheric pressure almost altogether and only in a small degree to muscular resistance or pelvic rigidity, must be obvious to those who have felt the head stop and recede before it had reached the pelvic floor and while it was still suspended in space, a half an inch or more above the muscles.

Professor Duncan (Duncan's *Obstetric Essays*), who must have frequently noticed this apparent anomaly, realized the inadequacy of the commonly accepted theories on the subject, and ascribed the retrocession in such cases to the "retentivity of the abdomen," but failed to perceive that this retentivity is almost entirely the result of atmospheric pressure.

Being convinced that atmospheric pressure is one of the principal causes of delayed labor, and knowing that there is nothing more easily displaceable than air, I began to work upon the problem of how to lessen or remove it during labor. I am convinced that I have succeeded and that the atmospheric tractor which I have the honor to demonstrate before you this evening will inaugurate a new era in the history and practice of the Obstetric Art. It will be, not only a substitute for the forceps in cases in which instrumental aid is absolutely necessary, but it will also be an indispensable assistant in cases which are usually left to the tedious and painful efforts of Nature. With it the physician can dispense with anæsthetics and reduce the expulsive stage of labor to a few minutes, instead of hours, the agony of child-birth will be reduced to an infinitesimal degree without incurring any risk or inflicting any injury on either the mother or the child, and many lives will be saved which would otherwise be lost.

The operation is extremely simple. It consists in applying a cup or concave disk of rubber or other air-tight flexible material, to the child's head, and creating a vacuum within or beneath, so that it will be firmly affixed to the head by atmospheric pressure, and then making traction on the handle of the cup or disk. Any amount of desired power can be obtained by employing a cup of sufficient area. The normal pressure of the atmosphere being fifteen pounds to the square inch, it is obvious that the tractile power capable of being exerted through a cup or disk of four square inches of area, and within or beneath which a vacuum has been formed, will be sixty pounds. The cup which I have here, covers when expanded a surface of about five square inches. If the vacuum beneath it were perfect and if the surface to which it is affixed were homogeneous, polished and solidly coherent, it would furnish a tractile force of almost seventy-five pounds. Allowing fifty per cent. for the loss of power consequent upon the elasticity of the cup, the flexible character of the scalp, and the mechanical impossibility of producing a complete vacuum, there will still be left a force of thirty-seven and a half pounds, which when properly applied is more than

sufficient to quickly and safely terminate any case of labor. It has been claimed that there are cases in which an enormous force is requisite, cases where the physician has been obliged to pull upon the forceps with all his force and even to ask an assistant to furnish additional power. Reflection will show, however, that in no such case has the physician exerted his entire muscular strength in endeavoring to extract the child. He may think he did, but he was involuntarily prevented from so doing, partly through the intuitive fear of injuring the mother or the child and partly by the expenditure of a considerable amount of his strength in maintaining his own equilibrium. Were a physician in any such case to exert his whole muscular force, he would pull patient and child out of the bed or haul both the bed and the patient around the room.

The large amount of force apparently required in some cases is because it is misdirected. The head is not properly flexed, and traction is exerted in a direction that would tend to pull the occiput through the pubic symphisis, instead of under the pubic arch, and it must be remembered that a great amount of force is unconsciously expended in maintaining the grip of the forceps on the child's head, especially if traction be made at the moment when the uterine vacuum is most complete. Experiment with any globular surface will show that unless increased pressure accompany the tractile efforts, the jaws of the forceps will be expanded and slip uselessly over the body that they were intended to move.

Scientific manipulation is the requisite in obstetrics, and not great force misapplied. If the occiput be lowered so that the head can revolve or pivot against and under the pubic arch, the voluntary or involuntary contraction of the child's posterior cervical muscles will be sufficient in many cases to throw the face upwards and outwards and facilitate or complete delivery. If the head be in a proper position for this final upward and outward rotary movement, comparatively little force is needed to complete delivery. Professor Duncan in his researches upon the power employed in labor arrived at the conclusion that "the maximum force in the most difficult labors does not exceed eighty pounds; that the great majority of labors are completed by the propelling force not exceeding forty pounds, and that in the easiest labors comparatively no force at all is exerted, the child gliding into the world by its own weight." An examination of his calculations will show that these estimates of eighty and forty pounds are much too high. He made the mistake of confounding the result of the force employed with the force itself. His experiments, briefly stated, consisted in fastening a series of sections of the amnion over a conical vessel, the mouth of which was about sixteen square inches in area. He connected this with a water-pipe of one inch in area and found that the amnions of minimum strength were ruptured when the pressure on the water in the pipe reached four ounces and those of maximum strength, when it reached three and one-tenth pounds. He then calculated that if the pressure on one square inch of the strongest membrane at the time of its rupture was three and one-tenth pounds, the pressure on the entire thirteen square inches of it, when the bag of waters was projecting through the os into the vagina, would be forty pounds. This was correct, but he erred in assuming that this forty pounds manifestation of pressure implied that there was forty pounds of force exerted to produce it. The laws of hydrodynamics and the laws of the multiplication of forces show that there is a very great disproportion between a force and its results or between the power exerted and the weight which that power will move. A force of one pound in the tube of the water bellows will lift one hundred pounds on its surface. A man with a crow-bar can move ten or fifteen tons. It may, therefore, be safely assumed that the bursting of the membranes under a pressure of three pounds to the square inch does not mean that there is a force of forty pounds or more exerted against the other end of the uterus. The proposition that eighty pounds of force is exerted in other cases as the result of muscular efforts is not much less extravagant than the assertion in *Tristram Shandy* that the force of the efforts in strong labor pains is equal upon an average to the weight of four hundred and seventy pounds, acting perpendicularly upon the head of the child. A force of eighty pounds applied to the body of an unborn infant weighing five or six pounds would be equivalent to a force of two thousand pounds applied to the body of an average adult—more than sufficient in either case to produce immediate death.

Exerted as a tractile force, eighty pounds of power will move a weight of four hun-

dred pounds, which is more than the usual weight of the bed, patient and child combined.

The problem in labor is to move a two-pound head two inches in one direction and eight or nine inches in another, through a channel, the walls of which are soft and yielding and covered with an unctuous secretion—conditions which reduce the element of friction to the lowest point. The occiput is only required to traverse the depth of the pubic symphisis, while the forehead and chin must traverse the entire depth of the pelvic cavity and extended perineum. It is obvious that the most rational way of accomplishing this complex movement is not to attempt to make the head advance as a whole, but to move one end first and then the other.

With the forceps the head must be moved more or less as a whole along the imaginary curve of Carus. With the forceps, practically nothing can be done but to pull. Rotation may be attempted, but in trying to perform it the points of the blades may, and often do, inflict serious injury upon the maternal tissues.

With the Atmospheric Tractor nothing is more easy than to apply it to the upper portion of the head and bring down the occiput. It may then be applied to the lower portion of the cranium, and the forehead and chin may be easily drawn upwards and outwards, and delivery completed. If the head is caught on the pubic bone, as in a semi-frontal or brow presentation, it can be easily pushed back with the tractor, and then depressed or rotated in any desired manner before being brought down. The tractor is practically a clamp which can be firmly attached to a large area of the surface, placing the head under the absolute control of the physician and enabling him to lift it, to turn it and to move it in any desired manner.

In order to apply it, all that is necessary is to see first that the os uteri is sufficiently dilated or dilatable to permit of its introduction. After having decided on the part of the head to which it is to be applied, place one hand against the abdominal projection, in order to prevent the head from receding, and introduce the tractor into the vagina or within the os, and firmly press it against the child's head until the handle or vacuum producer has driven out all the air from within the disk or cup. The handle can then be grasped, and extraction proceeded with. If, as occasionally happens, the head is dry, it ought to be moistened with water, or rubbed with some unctuous material.

The principal objections which may be urged against the use of the tractor are:

1. That the hair on the child's head will prevent it from being firmly applied.
2. That it is difficult to apply.
3. That its application will require injurious force.
4. That when applied it will exert injurious pressure.
5. That it will act as a cupping glass, producing an unsightly swelling, or even—as has been thoughtlessly asserted– "draw out the child's brains."
6. That in using it the scalp might be torn off.
7. It will carry infection.

The first of these objections I will dispose of by a practical illustration. (Dr. McCahey here affixed the tractor on the head of an infant three weeks old, and after moving it around a cot which had been provided for the purpose, lifted it up in the air two or three times, the tractor remaining in position all the time and the child apparently suffering no pain.) These, and other objections which may be raised, are based upon a misapprehension or a forgetfulness of the laws of hydro-dynamics.

As to the second objection, as you have just seen, the tractor is not difficult of application. As to the third, the amount of force necessary to create the desired vacuum is less than ten pounds at starting and decreases to almost nothing as the air is driven out of the cup, and it is exerted not on the head, but on the air within the cup.

The tractor cannot exert injurious pressure on the head. With it on the head there is no more pressure upon the area it covers than before it was applied. It merely takes the place of the lowest strata of air and is held against the scalp by the ordinary atmospheric pressure.

It will not act as a cupping glass, because it is applied flat against a large area, while a cupping glass is applied against a narrow circle, into which it is driven by the overlying air.

It will not produce an unsightly swelling, because there is no cavity into which an effusion can take place, and even if there were a large central opening, the brain would not be sucked up into it, because there is no internal pressure sufficiently

strong to force the brain either through or against the scalp. The tractor may be applied with absolute safety over either the bony part of the skull or over the fontanelles.

There is no danger of detaching the scalp because the tractor is not sewed or glued to the skin. It is affixed against it by a certain atmospheric pressure. Traction exerted in excess of that pressure will merely result in a separation of the disk from the scalp and not the tearing of the scalp from the bones. It can thus be seen that injurious or excessive force cannot be employed with it.

It is well to remember in this connection that while we speak of making traction on the head with the apparatus, and while we do apparently pull the head and lift the child with it, in reality we simply relieve the front of the head from the pressure of a five-inch cylindrical column of air, thereby allowing the head to be moved forward or the child to be lifted by the expansive force of the air behind or beneath it. No greater force of traction can possibly be excited by this apparatus because at the instant when it passes beyond eight or ten pounds to the square inch, it will separate from the head.

If the disk or cup were left on the head for a long time it might produce a slight congestion of the skin or even a small swelling, but nothing comparable to the caput succedaneum or the cephalhematoma sometimes occurring, which are the result of continuous pressure against the rigid os or the bony pelvis. Even if there were a slight discoloration or effusion, it would be certain to pass away in a few hours or days, and must not be allowed to weigh for one moment against the instantaneous relief from pain and the quick and safe delivery obtained by the employment of the tractor.

Pain is due to the resistance met with by muscular action. The resistance encountered by the abdominal muscles when pressing the head of the child against the bony pelvis is productive of intense pain. If the position of the head be changed with the tractor, and the abdominal muscles be relieved of the necessity of expelling the child, the pain ceases as if by magic.

The danger from infection is absolutely nil, if ordinary cleanliness be observed. After using the tractor all that is necessary to purify it for the next case, is to place it for a few minutes in boiling water or any antiseptic solution.

I have constructed various forms of tractors, some with a ball-valve, some with an air-cock, to which a rubber tube three or four feet-long was attached, and an air-pump adjusted at the other end of the tube so that the nurse or other attendant could readily produce the desired vacuum, some with curved edges, some with concave edges; but the form I have exhibited to-night is the most readily applicable and the most reliable and best. As you see, it flattens itself out when applied to the head, thus giving an area of contact and traction equal to its entire surface. With the other forms, traction and contact can be obtained only within a limited area around the circumference.

The cups in which the air is exhausted by means of a pump or a ball-valve are open to the serious objection that their valves would become clogged up with the material on the child's head, which would require that they should be taken apart and cleaned or discarded entirely after each case.

I have used the Tractor in five cases, and in each case effected delivery with it in five minutes. Without it labor would have been prolonged in all for hours—hours of suffering to the mothers and hours of more or less anxiety to the attendant. An instrument capable of producing such beneficial results is certain to be universally employed within a comparatively brief period.

PERISCOPE.

Posthumous Labor.

In connection with the item on posthumous labor, in the REPORTER, October 4 and November 1, we quote the following letter of J. H. Nankivell, M. R. C. S., District Surgeon of the Transkei, South Africa, from the *Lancet*, October 18, 1890:—"In your issue of July 19 there is a notice of a reputed case of posthumous labor occurring at Moglia in the province of Mantua. In February, 1888, I made a post-mortem examination at mid-day on Sunday of the body of a woman who died before noon on the preceding Friday. After her death the friends sent four miles away to a shop for materials for a shroud, made the shroud, and put it on the body. On Saturday they put her into a coffin. On my arrival, in company with a magistrate, they informed me that the deceased died in the sixth or seventh month of pregnancy, and because

two or three weeks ago she had been assaulted they had reported the case to the magistrate. I opened the body in the usual way (as it lay in the coffin), and on passing my hand into the abdomen found no pregnant uterus. The astonishment of the relatives was great and evidently genuine. Upon further examination I found a large uncontracted uterus in the pelvis, and upon ripping open the remainder of the shroud, I discovered, lying under the thighs, a newly born dead child with cord and placenta attached. The friends were positive that the birth had not taken place when they lifted the body into the coffin, as from the way in which this was done two of them would have felt the child and the soiling of the shroud. Moreover, they assured me that at this time, about noon on Saturday, the corpse had an unpleasant odor and froth was oozing from the nose and mouth. When I had the lid removed in order to make my examination, there was not the least sign of the body having made any movement, ante- or post-mortem. But what struck me as strange (and the weather for two days had been cold, with drizzling rain) was that the temperature of the interior of the body was rather above than below normal. I could only come to the conclusion that the woman had died with a very high temperature from a fever which was at that time prevalent among the natives, and that the child had been expelled by the uterus certainly six hours, and in all probability more than twenty-four hours, after its mother's death. As the uterus resists decay longer than any other muscle in the body, so it may retain for a longer period after death its power of contraction. In such cases it is reasonable to suppose that the first and a portion of the second stages of labor are completed before death, and that the fetus and placenta are expelled either before rigor mortis has set in or after it has passed away."

Pennsylvania State Board of Health.

In his annual report Secretary Lee, of the Pennsylvania State Board of Health, says that the water supply of Philadelphia is the only one in the entire State, so far as he has been able to discover, which the Legislature has thought it worth while to protect. Influenza, he says, was the only widespread epidemic which visited the State during the year. Up to the last of May, 88,416 persons had been ill with the disease. Warning circulars were sent out during the year to clergymen and undertakers advising against holding public or church funerals in the case of persons who have died of contagious or infectious diseases. Smallpox appeared in but three cities—Pittsburgh, Canonsburg and Glenlyon, and only two cases of leprosy, one in Philadelphia and the other in Chester. Considerable complaint was heard during the year regarding the collections of stagnant water in the beds of abandoned canals.

As Superintendent of Vital Statistics, Dr. Lee has issued the first official "Register of Physicians in Pennsylvania by Counties," a volume of 425 pages, giving the date of registration, full name, sex, place of birth, residence, etc. The Secretary says there are many names recorded of persons holding diplomas from those infamous bogus faculties which disgraced Philadelphia some years since.

The total number of graduated physicians registered is 7,315. Of the 8,248 reported 641 are of foreign birth. The registration indicates that 7,316 are graduates of medical colleges, 2,009 being among the Alumni of Jefferson Medical College, and 1,945 among the Alumni of the University of Pennsylvania. The returns show that there are 952 physicians practicing without diplomas. There are 316 female physicians in the State.

The report recommends legislation to prevent the pollution of streams and to provide for the sanitary organization of the State.

Sterility.

The Boston *Medical and Surgical Journal*, November 13, 1890, says:

A few months ago a French author told a story of a married pair who consulted him, as they wished to have children. They had just come from the office of a well-known Parisian physician who had advised that the wife's uterus be curetted. A thorough examination revealed nothing wrong with the woman, but the husband's spermatic fluid was found to be entirely without spermatozoa, due to a previous double epididymitis. That the common opinion, that failure to produce children is probably due to some defect in the wife, is not justified, is shown by Lier and Asche, who found that out of 227 cases of sterility 132 could be credited to the man, most of them due to previous gonorrhœa. Where the man was at fault

only six per cent. recovered their power of reproduction by treatment, whereas twenty-five per cent. of the women subsequently became pregnant. The authors emphasize the importance of examination of the spermatic fluid in all supposed cases of sterility.

Trional and Tetronal.

The supplement to the *British Medical Journal*, October 18, 1890, cites the *Deutsche med. Wochenschrift* as authority for the statement that the action of trional and tetronal has been tried by Drs. Barth and Rumpel. Both these bodies are related to sulphonal. Sulphonal is diethyl-sulphon-dimethyl-methane; trional is diethyl-sulphon-methyl-ethyl-methane; tetronal is diethyl-sulphon-diethyl-methane. Trional is therefore sulphonal in which one radical of ethyl replaces one of methyl. In tetronal both radicals of ethyl are replaced by ethyl. The action of these preparations was tested in cases in which sulphonal had been proved to have a beneficial effect. Tetronal was given 74 times in 30 cases, the largest individual dose being 60 grains. It was effective in 65 instances, and did not produce any disagreeable effects. Trional was given 72 times in 40 cases, and produced sleep in 64 instances, the largest individual dose being 45 grains. In some cases lassitude and drowsiness were complained of as after-effects. In 21 cases of delirium, tetronal was given 52 times, in 10 cases trional was given 52 times; neither had any appreciable effect. The authors conclude that both these hypnotics are useful drugs, but are not superior to sulphonal. In some cases in which sulphonal did not act trional and tetronal were effective, for example, in certain nervous conditions. Both drugs seem to have fewer after-effects than sulphonal.

Isococaine, a New Anæsthetic.

The *Pharmaceutical Record*, October 20, 1890, says if ecgonin is treated with caustic soda or potassa, it changes into the isomeric isoecgonin. If the chloride of this base be suspended in alcohol, in which it is insoluble, and hydrochloric acid gas be passed into the mixture, it becomes clear. When evaporated to dryness, the residue taken up with water, the solution made alkaline and shaken with chloroform, beautiful prismatic plates of isoecgonin ethylether separate. Isococaine is obtained from this by heating with two parts of benzoylchloride for a short time in oil, both up to 150° or 160°. The melting point of isococaine is at 44° C., that of cocaine at 98°. With hydrochloric, nitric and hydrosulphuric acids, isococaine forms sparingly soluble salts. The process for making it has been patented by the firm Bohringer, in Mannheim. Its advantage over cocaine is a quicker production of anæsthesia. The oculist cannot use it, as it is even more of a local irritant than cocaine.

Cases of Prolonged Fasting.

Science, October 10, 1890, says a correspondent of the *Lancet* writes as follows: "The name of General Colletta, author of the *History of the King of Naples from 1734 to 1825* is one of the most respected in the annals of modern Italy, and his reputation for discernment and veracity may fairly be placed on a level with that of the Duke of Wellington in our own country. His description of the terrible earthquake which in 1783 devastated Calabria, and was severely felt throughout the Kingdom of the Two Sicilies, is of unquestioned authority, and from it the following incidents are extracted. They refer only to persons and animals imprisoned beneath the ruins caused by the earthquake. It is only necessary to add that the facts were ascertained by Gen. Colletta's personal investigations at the scene of the catastrophe. 1. A female child, eleven years of age, was extricated on the sixth day and lived; and another girl, sixteen years of age, Eloisa Basili, remained under ground for eleven days, holding in her arms an infant which had died on the fourth day, so that it was decomposed and putrefied at the time of her rescue. She was unable to free herself from the shocking burden in her arms, so closely were they hemmed it by the fallen wreckage. 2. More wonderful still, as regards duration of life, were certain cases that occurred among animals. Two she-mules existed under a heap of ruins, the one twenty-two days, the other twenty-three; a fowl lived for twenty-two days; and a pair of hogs, which were completely entombed, remained alive thirty-two days. The human beings who had undergone these unwonted privations, when interrogated as to their sensations, replied, 'I can recollect only up to a certain point, and then I fell asleep.' When it is remembered that all the creatures thus circum-

stanced were deprived entirely of water or other liquids, it is hardly to be wondered at, that, though there was no desire for solid food, they displayed on their liberation an insatiable thirst, and, the author adds, partial blindness—*sete inestinguibile e quasi cecità.*"

Resuscitation of the Apparently Drowned.

The *Medical Record*, Nov. 8, 1890, says: For the revival of persons who have been nearly drowned, two chief methods (with numerous slight modifications of each) are in use: the "Sylvester" and the "Marshall Hall." In 1862, a committee appointed by the Royal Medical and Chirurgical Society of London, to consider the rival claims of the two methods, reported in favor of the method of Sylvester, on the ground that the amount of air introduced into healthy lungs by this method was double that introduced by the method of Marshall Hall. The committee recommended that the body should be placed at an angle of thirty degrees, face downward, with the head lower than the feet, the mouth being open and the tongue drawn forward. The escape of fluids might be assisted by slight pressure on the back. After a few seconds the body should be laid back downward with a cushion under the shoulders, the tongue hanging out of the mouth. About fourteen times a minute the arms should be drawn above the head and then lowered and pressed, by the elbows, against the chest.

In the Transactions of the above-mentioned Society for 1889, Dr. Bowles criticises very earnestly the conclusions of the committee, which had been endorsed by the Society. The committee based its report upon experiments made with the *empty* lungs of animals. The physician, however, has to deal with human beings whose lungs are filled with fluid, mixed with air in a blood-stained froth. Under these conditions the most useful method must provide not only for the inspiration of air, but also for the escape of this frothy liquid from the deeper air passages. The sudden introduction of a large quantity of air by the Sylvester method is injurious, because at the same time the froth is drawn deeply into the finest tubes, which before contained a little air. By the Marshall Hall method, however, the air is introduced gently and in small quantities, and the froth is not drawn in more deeply, but is gradually expelled with each expiratory movement. Dr. Bowles supports his statements by the recital of a number of cases which he has treated.

After the patient has been placed for a moment with face downward to allow the escape of water from the mouth and throat, he is turned on the side and *kept on that side* continuously, except when (about fifteen times a minute) the body is rolled for a few seconds upon the face again. By *keeping the same side always up* the lung on that side becomes clear. Turning first one and then the other side up is dangerous, because thereby the partly cleared lung is suddenly flooded with fluid from the lung which was downward. It is better to clear one lung entirely than to have both half cleared. Each time the body is turned upon the face a little more froth and water escapes from the mouth and nostrils. If one lung is thus cleared it may escape the inflammation which results from the inspiration of water. When the upper lung has been almost cleared, Dr. Bowles finds it useful to raise the upper arm above the head as in the Sylvester method, since the entrance of larger quantities of air into the lung is now safe. Pressure on the back at each pronation assists the escape of water somewhat, and it has a good influence on the heart, aiding the propulsion of blood towards the lungs. The continued use of the prono-lateral method is an excellent mode of keeping the pharnyx clear of obstruction.

Eleventh International Medical Congress.

Dr. Guido Baccelli, President of the Accademia Medica of Rome, and Professor of Clinical Medicine at the Sapienza, presided at a recent meeting of the Società per il Bene Economico di Roma, to consider the means of ensuring the success of the next International Medical Congress to be held at Rome. Among the adjuncts to the Congress there will be an International Exposition of Hygiene. Florence, which has hitherto led in hygienic progress in Italy, has promised energetic co-operation, and Turin and Milan are expected to do likewise. Concurrently with the Medical Congress, it is expected that an International Exposition of the Industries of All Nations will be held. The early summer—May or the beginning of June—or the early autumn months—September or October—will probably be selected for the Medical Congress.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

EPIDEMIC HYSTERICAL ECSTASY.

An interesting account of an epidemic of hysterical religious ecstasy is reported by J. W. Hjelmann, in the *Finska Läkare Sällskap Handl.*, as quoted in the *Wiener Med. Presse*, June 15, 1890. The epidemic occurred in the northeastern part of Finland, and began at a dance, a girl sixteen years old being the first subject. During the course of the entertainment the patient was suddenly seized with violent convulsions. A few days later a second girl, who was taking the place of the first, was also seized with similar convulsions; and in a very short time twenty or thirty persons, mostly young women, were similarly affected. During the first part of the epidemic, the symptoms were merely those of convulsions, but later, after recovering from the convulsions, some of the patients began to preach, and the populace came from far and near to hear these—as they thought—inspired sermons. Many of the listeners had their initial convulsion during these meetings. The attacks were of a hysterical nature. In a few cases there was anæsthesia; but in the milder cases the convulsions were absent and were replaced by hysterical hiccough. In all there occurred about fifty cases, and the subjects included five men.

With the approach of winter the epidemic gradually died out, after having lasted for half a year. Hjelmann concludes by drawing attention to the fact that the province in which the epidemic existed, is almost shut off from intercourse with the outside world, and that the people's intellectual development is unusually low. A similar ecstatic religious movement had occurred in the province fifty years ago.

The study of epidemics of hysterical ecstasy takes one naturally back to the time of Mesmer, and his séances. His patients, seated around a tub of water supposed to be magnetized, would gradually become more and more excited until they were seized with violent convulsions and were conveyed to padded rooms; there to "fight it out" with their supposed or real disease. The condition thus produced was undoubtedly one of hysterical ecstasy. Similar séances were held in various parts of France, largely attended and fruitful of the same hysterical exhibitions.

In Arabia, among the Mohammedans, and in India, among the Fakirs, religious festivals are attended by similar epidemics even at the present day. An eye-witness describes such a scene as follows: It occurred at a religious festival of the Mohammedans. A "son of the Prophet" was present, in his huge green turban, and had promised to heal the sick and perform other miracles. The descendant of Mahomed sat on a canopied dais at one end of the enclosure, and in a circle around him, squatted a large number of men with

tom-toms and horns. Presently a weird chant was started, accompanied by beating of the tom-toms, which gradually increased in volume and energy, the "believers" evidently growing more and more excited. Presently a man, bared to the waist, stepped into the centre of the enclosure; lifted above his head, by point and hilt, a sword with an edge as keen as a razor's, and, crying: "There is no god but Allah, and Mahomed is His Prophet!" brought the sword violently down against his abdomen, and then fell flat on his back. The son of the Prophet then stepped from the dais and, steadied by two servants, stood upon the blade, over the man's abdomen, muttering some prayers in the meanwhile. He then returned to the dais, and the man lifted the blade from his abdomen. There was no cut!

This clever trick had a marvelous effect upon the chanting crowd. Several sprang up, and seizing axes or knives, proceeded to mutilate themselves in the most horrible manner. Others leaped, shouted and finally fell in violent convulsions, frothing at the mouth and struggling violently. The performance continued for several hours. At its close the mutilated men were carried to the Prophet, who touched their wounds and offered a prayer. No "healing" was visible. Those in convulsions and others unconscious were also carried away. These festivals last for days, often weeks, and their effects still longer.

Coming to our own country, we see similar hysterical manifestations, although of much milder type, occurring during religious revivals. While, happily, these do not become epidemic, yet cases of hysterical ecstasy, taking the shape of trances or convulsions, are frequently the outcome of emotional religious movements.

A study of hysterical ecstasy shows that it is a pathological condition, and if encouraged to any degree would result in serious injury to the subjects of it. The arousing of such conditions, whether at revivals or mesmeric séances, should therefore be vigorously discountenanced by the profession.

SUGAR IN PATHOLOGICAL EFFUSIONS.

Our knowledge of the composition of ascitic, pleuritic and other pathological effusions has been very imperfect hitherto, especially with regard to the presence in them of sugar. The investigations of Dr. William B. Ransom, therefore, which are published in the *Practioner*, October, 1890, are very welcome and deserve brief notice, even though Dr. Ransom modestly admits that his conclusions to some extent are tentative. Before examining for sugar, he removes the proteides in transudates and exudates, by boiling the fluid after faintly acidulating it with acetic acid. If this does not suffice, the fluid is evaporated to dryness on a water-bath and the residue is extracted with boiling alcohol. The tests used for sugar were the well-known ones of Fehling, of fermentation with yeast and picrate of potassium, Moore's test with liquor potassæ, and the reduction test with bismuth. For quantitative examination, the filtrate, obtained as described, was tested with Fehling's solution, the sugar being reckoned as dextrose.

Only a brief summary of Dr. Ransom's conclusions will be given. Ascitic fluids, he says, probably always contain sugar, usually not less than one-tenth of one per cent. When the ascites is due to portal obstruction the amount is greater, the average of nine cases being fifteen-hundredths of one per cent., and this increases when sugar is given as food. This fact indicates that sugar normally is absorbed by the portal vein and not by the lacteals. The fluid of ovarian cysts contains no sugar, or only a trace of it. Œdema fluids, on the contrary, contain sugar, but not more than one-tenth of one per cent. Inflammatory serous effusions, as in blisters and pleurisy, contain sugar in less amount and less constantly than do transudates, the sugar probably being absorbed by the out-wandering leucocytes. Pus contains

no sugar. Hydrocele fluid, when free from degenerative products, contains sugar. Cerebro-spinal fluid may, under certain conditions, contain sugar, but Dr. Ransom says this is not the most constant reducing body. True sugar may also be present in hydatid fluid.

Dr. Ransom's investigations are, of course, interesting from a physiological point of view, as showing how widely distributed sugar is in the economy; but they have also a direct clinical bearing. For example, a larger percentage of sugar is to be expected in pleural and pericardial effusions than in hydro-pericardium and hydro-thorax; indeed, the presence of sugar in any amount would appear to indicate the latter rather than the former. Again, the finding of sugar in a doubtful case, suspected of being one of ovarian cyst, would make the existence of the latter disease doubtful.

We do not desire to exaggerate the importance of Dr. Ransom's results, but we think them interesting and as such deserving of notice; and we have pointed out the way in which they can be made clinically useful.

NEW WAY OF ABUSING MEDICAL CHARITY.

We fear somebody has been playing a trick on the New York *Medical Record*, which, in its issue of November 8, says:

"The celebrated surgeon, Professor Billroth, of Vienna, was asked to perform an operation upon a Russian Jew, and he agreed to do it for a fee of two hundred and fifty guineas. On making the journey to the small town in which his patient lived, he was informed that the Jew had suddenly died. However, in order that he should not suffer loss by the transaction, the Professor was asked whether he would treat five hospital patients for a fee of fifty guineas each. He accepted the offer, and did the work; and just as he was starting homeward he ascertained that one of the five patients upon whom he had operated was the Jew who was reported to have died."

This seems to be so obvious a paraphrase of a joke, published long ago in the *Fliegende Blätter* that it is impossible to avoid the conclusion that either the editor of the *Record* or Professor Billroth is not a constant reader of that admirable and entertaining journal.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

LATIN GRAMMAR OF PHARMACY AND MEDICINE. By D. H. ROBINSON, Ph. D., Professor of Latin Language and Literature, University of Kansas, with an introduction by L. E. Sayre, Ph. G., Professor of Pharmacy in, and Dean of, Department of Pharmacy, University of Kansas. Philadelphia: P. Blakiston, Son & Co., 1890. Price, $2.00.

This is a most admirable book, one which ought to be in the hands of everybody who wishes to write medical articles, and to have his prescriptions correct. It contains a great deal that nobody will care for outside of schools and colleges; but it also contains a great deal which would be invaluable to medical writers, and especially to medical editors. If the former class would devote themselves with sufficient zest to a study of this book, it would no doubt add materially to the longevity of the latter. It might not be improper, perhaps, to say that this book might be especially commended to the careful attention of writers of works on materia medica and therapeutics, as it has been some time since we have seen a work on this subject which did not contain errors such as this book is calculated to prevent.

TRANSACTIONS OF THE SOUTH CAROLINA MEDICAL ASSOCIATION. Fortieth Annual Session, at Laurens, S. C., April 23 and 24, 1890. 8vo, pp. x, 130. Charleston, S. C.: Walter, Evans & Cogswell Co., 1890.

The volume opens with the annual address of the President, Dr. James Evans, of Darlington. Dr. James G. Gilder, of Newberry, reports a case, probably of Cyst of the Spleen; Dr. T J. McKie, of Woodlawn, inquires into the causes of Pulmonary Tuberculosis in the Negro; and Dr. Cornelius Kollock, of Cheraw, reports a Laparotomy for Uterine Fibroids. Dr. Charles W. Kollock's paper on Young Eyes, is an interesting one. He urges great watchfulness on the part of the family doctor, and details the treatment of the common eye affections of children He also has a paper on Some Cataract Cases. Dr. R. B. Rhett, Jr., reports a case in which an Intraligamentary Cyst was successfully treated by Iodine injections, and also one on Cholecystotomy in a Pregnant Woman. Dr. R. A. Kinlock gives the details of some Laparotomies for Removal of the Uterine Appendages; Dr. O. B. Mayer, Jr., reports Two Cases of Retention of the Menses. The Report on Ophthalmology is by Dr. George Howe; that on Practice, by Dr. T. P Bailey. Dr Manning Simons, of Charleston, reports an interesting case of Aneurism and Arterio-venous Aneurism of the Femoral Artery and Vein; Dr. Thomas Legare,

of Charleston, has some Remarks on the Treatment of Pelvic Peritonitis. The Report on Surgery is by Dr. O. B. Mayer, Jr.; that on Obstetrics by Dr. P. G De Saussure. Dr. E. F. Darby has a timely paper on Physical Culture.

We notice that the minutes of the meeting have been omitted from the volume; whether by accident or design does not appear. The character of the papers read shows that the Association is capable of very good work.

CORRESPONDENCE.

Consumption Among Firemen.

TO THE EDITOR.

Sir: Permit me to call renewed attention to some statements made by Dr. Mays in the REPORTER of September 27, in an article on "Consumption among Firemen." Dr. Mays evidently was misinformed, or labored under a serious misapprehension of alleged facts. He states that the percentage death-rate of consumption in firemen is very high, notwithstanding that the previous health of the members of the fire departments in the respective cities from which he gained his facts was good, and notwithstanding the fact that the members are selected from a healthy class of men, that they are not exposed to any infection, and that they lead an out-door life. Hence as their circumstances are antagonistic to bacillary invasion, the excessive mortality must be due to causes other than specific infection.

I have not had either the time or inclination to inquire into the specific details of fire departments in the many cities mentioned by the author, but opportunity was afforded for inquiry into the fire department of this city, and as the facts gathered are in direct variance to those of the author referred to and contradict all his premises, his conclusions regarding all the departments are vitiated. I am indebted to the efficient clerk of the Philadelphia Fire Department for my data.

1. Are the men who now, or did, compose the Fire Department during the period of the writer's statistics (1871–1890), selected? That is, free from the hereditary taint, past or present lung disease, and not exposed to infection a short time before appointment?

Before the advent of the present government of this city, four years ago, physical examination of applicants for firemen was not held, except during two years of the term of Mayor Smith, just preceding the present term. It was notorious that men infected with consumption, with strong political influence, were placed in the Department to secure the death benefit that falls to deceased members.

Mr. Watson, who has been in the Department since its organization, informs me that 13 of the 33 who died of consumption had it before entering, and I find from the table he has given me that 5 died within two years of the time of admission, one as soon as seven months. It is interesting to note that of the actually selected men thus admitted during the past eight years, not one died of consumption. If the 13 cases are eliminated as per the above, it is seen that the deduction of more than one-third — nearly one-half—must be made from the author's percentage calculation.

2. Is the occupation of the fireman properly an out-door one?

To presume such to be the case, one must believe the city in a constant state of conflagration. The most superficial observer knows of the lazy life the fireman leads, of the fattening process he undergoes, and how in winter he whiles away hours in the rooms of the engine-house, smoking, and leading a truly enervating life.

3. Are the firemen isolated? Do they come in contact with tubercle bacilli or the expectoration of consumptives?

By the above, or the death-record of the departments, it is seen that each fire-house may have one infected person in it. Moreover, the rules of the Fire Department of Philadelphia allow a man one hour three times daily to go home, and twenty-four hours each week to spend with his family, or where he will. Is this isolation?

To prove the men who died of consumption were not infected by the tubercle bacilli, one must prove their freedom from the possibility of contamination during each hour of absence from the department.

We hold, therefore, that it is not proven that firemen are a healthy selected class of men, that their occupation is an out-door one, that they are not confined to sunless and poorly-ventilated dwellings, or that they do not come in contact with tubercle bacillus or the expectoration of consumptives, "except by chance," or finally, that consumption is the cause of one-third of their deaths.

It is to be regretted that the methods adopted by the author to prove the propositions laid down were not given with the

same mathematical precision that we know obtains in the proof for the relationship of the tubercle bacillus to tuberculosis. Any one familiar with the close reasoning and absolute step-by-step demonstration of the statements of Koch, none of which have thus far been refuted, cannot but be impatient with the lax processes that are employed to repudiate his statements. Did I not fear that I was trespassing on your valuable space it would give me great pleasure to call attention to some facts which would refute the arguments of the authorities which the learned gentleman quoted in the article just referred to, as well as some misapprehensions which he appears to be laboring under, both as to the etiology of tuberculosis and its relation to pulmonary phthisis, as well as the assertions of authorities which he quotes. I am constantly reminded, however, of the fact that so little time is given us to build up the science of medicine and add new facts, that it is scarce worth while to waste it in counteracting those who are anxious to pull down.

Yours truly,

J. H. Musser, M. D.

Philadelphia.

Olive-Oil for Gall-Stones.

To the Editor.

Sir: I see in the Reporter, September 20, 1890, page 353, the report of a paper read by Dr. Burbank, denying the value of olive-oil in the treatment of gall-stones, also, the statement that what was expelled was not gall-stones, etc. This is a bold position for a doctor in the cotton-seed oil country, to take. I have used olive-oil in cases of gall-stones for some years, and can tell a gall-stone from dark-green masses, etc. I have patients who come for treatment with all the symptoms usual in those cases, and in every case the olive-oil treatment is a success. I use the pure virgin oil, and import it myself, and in every case I examine the stone carefully; therefore I am sure of what I speak. I, of course, use other medicines in those cases, as the general conditions of the constitution requires. I am now treating cases, and during the last few years have treated a large number, that had been under hypodermic injections of morphia and cocaine to allay the pain. In most of these cases I use a pill, at meals, of corrosive sublimate and iodide of potash for a few days, at the same time using the oil. My own experience proves its sure results.

Yours truly,

C. R. Earley, M. D.

Ridgway, Pa.

Notes and Comments.

Local Bleeding for Congestion of the Lungs.

In *The Lancet*, November 1, 1890, Dr. J. C. Simpson reports and recommends a bold method of blood-letting directly from the substance of the lungs. He describes a case in which he did this by accident, and then other cases in which he did it deliberately. In the first the patient was a woman with Bright's disease, which was not improving under dietetic and other treatment. One day she was becoming comatose, with fibrillary muscular twitchings, and intense dyspnœa, accompanied with œdema and congestion of the lungs. Under these circumstances venesection was indicated, as the ordinary treatment for such a condition failed to relieve it. In order to render the pulmonary phlebotomy as safe as possible, the aspirator was used, and the largest canula thrust into the lung substance at the level of the ninth costal interspace on the left side, the absence of pleural effusion having been previously ascertained. No blood flowed, and after various manipulations, reducing and increasing the suction power, Dr. Simpson removed the whole of the aspirating apparatus, and very shortly after there was a free flow of blood from the canula, which had been left *in situ*. After the withdrawal of twelve ounces of blood the canula was held *in situ* with the finger over the end to allow of a clot forming, and then it was slowly withdrawn altogether. A piece of plaster was applied over the puncture, but a flannel bandage could not subsequently be retained in position. The patient was immediately and markedly relieved, both as regards the cerebral and pulmonary conditions. No effusion took place, there was only trifling hemoptysis and a suspicion of a small patch of pleurisy, without a rise of temperature. The patient remained in a greatly improved condition for a considerable time after this, though she ultimately died comatose.

A third case similarly treated was one of almost complete breakdown of compensa-

tion in cardiac disease, there being double mitral and aortic systolic murmurs as well as well-marked dilatation.

A fourth case was one which also terminated fatally, death being due to uremic convulsions. In this case, instead of a flow of blood, the œdema was so pure that only serous fluid escaped very slowly, and coagulated quickly, thus rendering the process futile. In spite of brachial venesection, which was immediately performed on account of the urgent symptoms, this patient died of the convulsions.

These are four cases in which this procedure has been carried out—intentionally and systematically in the last three. So far as Dr. Simpson is aware, deliberate puncture of the lung in such cases with the intention of depletion has not been before practiced, and it is on this account that he desired to record his cases. By some it may be said to be unjustifiable or too heroic treatment; but with this he does not agree, provided that suitable cases are chosen, and that the operator is familiar with the use and abuse of the exploring needle: in other words, that he has the manipulative skill requisite for such an operation. These cases were all of a hopeless character, and only palliation at best could be expected, except in the cardiac case, the third recorded, and in it Dr. Simpson regretted that time had been lost in ordinary medical treatment. Dr. Simpson says, Whether his method would be useful as a *dernier ressort* in cases of acute uremia with pulmonary symptoms remains to be seen; but there was certainly immediate improvement in the cases where blood was abstracted. The aim and object is to try to get the good of venesection without such a loss of blood and its subsequent retardation of convalescence. The process is analogous to a pulmonary apoplexy, which is recognized as being of the utmost benefit in certain cardiac cases, and the pulmonary lesions in both cases have a strong similarity. The broad indications for this seem to Dr. Simpson to be that the case is one which has extreme pulmonary congestion and œdema; absence of effusion into the pleural cavity; general venous stasis and cyanosis, all of which may occur in the progress of certain heart and kidney affections; and that other treatment, medicinal and mechanical, has failed to relieve the symptoms. The co-existence of such congestion without pleural effusion is somewhat rare, and therefore this limits the practice; for the mere aspiration of the pleural effusion is almost invariably followed by such relief in cardiac cases that venesection is not required. It is therefore a necessary preliminary procedure to negative the presence of effusion in any quantity that would embarrass the heart's action and impede the pulmonary circulation. To do this thoroughly an exploring needle must be used. The condition of the lungs in a suitable case is such that, as regards the danger of subsequent pneumothorax, little or no air is being interchanged at the proposed seat of puncture, and the elasticity of the lung is quite sufficient to prevent any serious oozing taking place.

In practicing this method Dr. Simpson says the right side should be chosen if both sides are equally free of effusion, or are generally engorged. The site of puncture should be not higher than the ninth interspace posteriorly. The needle to be used is the largest usually supplied with an aspirator, the parts used being the canula and the corresponding trocar and fittings, but it will be found advantageous in some cases to use a probe of a size smaller than the canula.

The puncture should be made in one thrust, so that there be no danger of one or more small punctures of the lung. If this be not done the patient will cough and be troublesome, as the visceral layer of pleura is very sensitive, but with one thrust there is little or no discomfort. The depth of canula introduced need not be great at first, and it could only be by great carelessness that any vessel of any size could be injured. The *tactus eruditus* will at once advise the operator of the fact that the end of the canula is not in a free space containing fluid. The canula being steadied and the needle withdrawn, the operator should wait for a few seconds to see if any blood flows. If not, the canula should be moved, so as to produce slight laceration, then slightly withdrawn and usually there is a free flow. If clotting takes place, the smaller probe should be introduced and the canula cleared. The probe being smaller, allows of blood to flow, although it may be *in situ*, and keeps any lung tissue from the end of the canula.

The amount of blood to be abstracted varies according to the case and the results produced, it being as a rule less than would be required were venesection adopted. The extraction requires some care. The finger should be placed on the angular aperture

of the canula and either the needle or probe introduced along the canula and kept there for a few minutes, to allow of clotting to take place in the lung, and then slowly withdrawn.

The local after-treatment consists in applying a piece of plaster to the puncture, and a bandage if the dyspnœa will admit of it.

The Beef Tea Delusion.

Dr. E. B. Ward, says, in the *American Lancet*, Nov., 1890:

There are certain fallacies in the practice of medicine which any one can see through, but which have been handed down from one generation of doctors to another, until they came to be accepted and even taught as truths. Perhaps there is not one of them more generally adopted, or more harmful, than the beef tea delusion, and this was just now brought to my mind by reading, in a late medical magazine, "Prof. Keen's Method of Making Beef Tea." His method is much the same as was taught me thirty-five years ago, and which, even then, my juvenile medical mind revolted against to such an extent that I have not given beef tea for over thirty years. I substituted milk, which even so recently as that was thought by good authority to be a dangerous pabulum in low stages of fever. My cases of death, however, were fully as rare, and it seemed to me more rare, than with patients otherwise managed. Here is Prof. Keen's method: Select round or rump, as it is useless to spend money for choicer beefs when this is just as good for the purpose. Take one pound, chop it into fine pieces about the size of the end of the little finger, and soak in one pint of cold water for two hours. Then boil the whole, strain, and add enough water to make a pint. Add sufficient quantity of salt, pepper, etc., to suit the taste. The object of soaking in cold water is to get the essence out of the beef. If warm water is used, a coating of albumin coagulates on the surface of the beef, thus preventing the essence from escaping.

Now let us try to make some of this beef tea.

We take a pound of finely-cut beef and pour a pint of cold water on it, and let it stand two hours—while we write about it. The water is not near sufficient to cover the beef, but with occasional agitation we get at the essence. At the end of two hours we find the meat surrounded by a reddish-colored liquid. Put a little of this fluid into a test-tube, and hold it in the flame of a spirit lamp. You see it coagulates to the extent of one-fourth, perhaps. What is that? Well, never mind now, we are going to make some beef tea. Now, we proceed to "boil the whole." He doesn't say how long, and it does not make much difference so long as the water holds out. Now "strain and add sufficient water to make a pint." You perceive that it is too strong and has to be diluted. Let us take a little of this concentrated essence in a test-tube and examine it. Here is a translucent fluid with a bland taste, a neutral reaction, and a slight odor of beef. By closer inspection you observe little fine particles of sediment slowly settling. This, Pavy says, should be stirred up and given with the tea, but as it is only particles of coagula which have skipped through the strainer let us have it out. If part of it ought to come out, it all should. So we will filter this liquid, and you observe we have a limpid almost colorless fluid left, and a slight deposit on the filter. What is it? Well, we shall see shortly. Now take a little of this liquid in a test-tube and drop a few drops of nitric acid into it. There is no precipitate formed, so we know there is no albumin or fibrin in it. What is in it? Well, there is a little saline matter, and—a world of disappointment to any one who tries to sustain life with it. That is about all. Why!—Well, the thing is too absurd to talk about. Common well-water containing the average quantity of bacteria is more nourishing.

Thousands of sick people have been starved to death on this diet, and I want to enter my solemn protest against it before it is everlastingly too late. What you want is the albumin and fibrin of the meat in a condition requiring little digestive power, and that will be readily assimilated. The moment you coagulate these ingredients by heat you render them practically indigestible. These, however, by this process are mostly strained out and the fluid is left inert, or nearly so.

Good milk is preferable always, but if you must give beef tea, *never boil it.* Liebig says 120° F. is the highest temperature to which it should be subjected. It is not very inviting in its general aspect, but it holds in solution the ingredients that you want, and which are rendered useless for a weak diges-

tion by boiling. Liebig's plan is to add a little hydrochloric acid.

Perhaps there is nothing in the whole round of dietetics, however, that holds so much real needed food, in a given space, as good rich milk punch—teetotalers to the contrary notwithstanding.

Koch's Cure for Consumption.

The *Medical Record*, Nov. 15, 1890, says, editorially: As we write, the daily papers are printing, with every issue, some fresh news of the wonderful, and as yet secret, "cure" for consumption discovered by Dr. Robert Koch. The interest in it is natural and intense. In this country there are some two hundred thousand sufferers from this fell disease, and in Europe and other parts of the world a still greater army of victims are hopefully looking for some cure, or patiently awaiting the end.

The expectations aroused by the numerous and mysterious reports that are issued from Berlin must be very great. It is well, therefore, to consider how much can be in fact realized by the announced "cure." Of it we know at least this, that it is a germicide, and that its action depends upon its destroying the vitality or power of growth of the tubercle bacilli. If this is the case, it is a remedy that must have various limitations to its usefulness. Phthisis is, in most cases, in its inception an infectious bacillary disease. But after lung tissue is once well invaded, and necrotic and inflammatory processes set in, the infection is a mixed one, and pyogenic organisms are largely in control. No agent which simply destroys tubercle bacilli can, therefore, seriously modify the phthisical process. Germicides cannot cure phthisis in its second and third stages.

We are confident that Dr. Koch will not claim this for his "cure." Already it is stated that cases of lupus, of tubercular joints, and of phthisis in the first stage have been cured. But all these forms of tuberculosis can already be relieved by surgical and hygenic measures at our disposal. It remains to be seen, therefore, whether Koch has really supplied us anything which will carry the treatment of tuberculosis any further than it already has been brought.

One thing further, perhaps, he has achieved, viz., a method of prevention for those susceptible or exposed to the disease. This may be a gain, although the prevention of phthisis in individual cases is almost always possible if proper care is taken.

Orton Prize.

Dr. J. G. Orton, ex-President of the New York State Medical Association, has offered a prize of $100 for the best short popular essay on some subject connected with practical sanitation, under the following conditions:

1. Competition to be open to all.

2. Essays to be forwarded to the Secretary of the Association, Dr. E. D. Ferguson, Troy, N. Y., not later than August 1, 1891, accompanied by the name of the author under separate seal.

3. Examination and award to be made by a Committee appointed by the Council of the Association.

4. The successful essay to be read at the next annual meeting of the Association, and, if approved by the Council, to be offered for publication in the secular press, and issued in tract form or otherwise for general circulation.

5. Authors of essays, unsuccessful as far as the prize is concerned, but found worthy of special commendation, to receive intimation as to a proper disposition to be made of them.

Leprosy in Louisiana.

The *New Orleans Medical and Surgical Journal*, November, 1890, says:

In olden times a leper was set down as a source of danger to a community, and he was placed in an institution where he could drag out his weary existence without endangering the health of other people. Sometimes this quarantine amounted to banishment and was attended with sad hardships; but it was effectual, and leprosy almost became extinct. In countries where the disease was not regarded as communicable, it was not blotted out. In Norway leprosy is not regarded with special horror or fear, and the disease is allowed to linger there. In Louisiana we seem to be as brave or as foolishly indifferent as the Norwegians. There are no statistics from former years which would enable us to say whether the vile disease is increasing or diminishing; but there can be no doubt that the presence of more than fifty lepers in a State containing 1,140,000 inhabitants is sufficient to justify

the expenditure of enough money to make them no longer a source of danger. Not many months ago a single leper was found in London. He was a butcher, and the discovery that a leper had been handling the mainstay of British life and the British constitution—namely, the beefsteak—almost threw the world's metropolis into a panic. The news was telegraphed to all parts of the English-speaking world. Meetings were held under the auspices of the Prince of Wales, whence the patient was dubbed "the Prince of Wales' leper." Some one advocated the founding of a leper hospital, but nothing was done, although, we believe, subscriptions were raised. In time the scare died out.

After commenting on the undue prominence given to the case, the Editor contrasts it with the indifference to leprosy in New Orleans. He says that while attending a play at the most popular theatre in New Orleans, on October 19, 1890, he saw a youth pass by him between the acts who presented the typical leonine expression of tubercular leprosy. The theatre was crowded; it was a Sunday-night performance, always the best patronized in our wicked city. The leper was well dressed; he passed in and out among the throng like any one else. About two years ago the writer went, one afternoon, into a well-known restaurant to get a lunch. Just as he was about to begin operations three men entered and sat at a table not more than five yards distant. The husky voice of one of the men attracted the writer's attention. A careful examination showed that the man was suffering from leprosy in an advanced stage; his face had the leonine expression, and the husky voice doubtless indicated that the disease had invaded the larynx. A waiter was called and asked if the man with the hoarse voice was a regular patron of the eating-saloon. The reply was in the negative. The writer then ate his lunch. About two months ago he, while walking along the river front, saw a group of women and girls standing in a doorway and talking. When he was abreast of the group he was struck by the husky voice and labored speech of an old woman. True to his medical instincts, he turned his gaze upon the sufferer and saw a well-marked case of leprosy. He was walking along not very slowly, but he noticed a small stand or show-case containing bread and cakes for sale. The old woman was bare-headed, and from appearances seemed to be an inmate of the house in which the cakes were sold.

After making these statements the Editor adds: "Now, is this right? These incidents are not much, but they indicate a horrible degree of neglect on somebody's part. One leper 3,000 miles away can furnish our papers with palatable news, but fifty lepers at home are allowed to pass unnoticed. Unfortunately, frequent contact with our own lepers has made us callous and indifferent to the risk we are constantly exposed."

He says that it is the opinion of a large majority of the men who are familiar with the disease that the best known means of preventing its spread is by segregation under State or government authority, and that a member of the staff of the *New Orleans Medical and Surgical Journal*, who has, perhaps, seen more cases of leprosy in America than any other American, has advocated this plan before the medical public as well as before individual members of the State Legislature.

Lycoming County Society Lectures.

The Lycoming County Medical Society is giving a course of lectures by prominent physicians this winter. Dr. John B. Roberts, of Philadelphia, opened the course October 6, with a paper "On Simplicity in Fracture Dressings;" and Dr. J. C. Wilson, of Philadelphia, lectured November 4, on "The Treatment of Enteric Fever." Both lectures were attended by a large number of physicians of the West Branch Valley, the representation extending from Sunbury to Renovo. Other lectures will follow monthly.

Mütter Lectures of the College of Physicians of Philadelphia.

The course of lectures on Surgical Pathology, provided in accordance with the will of the late Prof. Thomas D. Mütter, will be delivered during 1890–91 by Prof. Roswell Park, of Buffalo, New York. The first series of five lectures will be given in the hall of the College of Physicians, corner of Thirteenth and Locust streets, on December 4, 5, 6, 8 and 9 at 8.15 P. M.

The subjects are as follows:

1. Introductory. Study of the blood and of some phases of the inflammatory process. Thrombosis. Embolism. Hemoglobin and

Oligochromemia. Ptomaines. Conditions predisposing to infection.

2. A study of pus and of pyogenic organisms, obligative and facultative.

3. Surgical sepsis and the organisms which produce it. Resumé of experimental work. Surgical fever, Intestinal Toxemia, Sapremia, Septicema and Pyemia.

4. Peritonitis: forms and causes. Testing the relative values of antiseptics.

5. Tetany and Tetanus.

The members of the medical profession are cordially invited to be present.

Pasteur Institute Statistics.

During the month of September, one hundred and forty-one persons were treated in the Pasteur Institute at Paris. Of this number, twenty-four were bitten by animals supposed to be rabid, from the success of "experimental inoculations;" ninety were bitten by animals considered rabid by veterinarians; twenty-seven were bitten by animals "suspected" to be rabid. The animals that did the biting were: dogs, one hundred and twenty-three times; cats, sixteen times; asses, twice.

NEWS.

—Dr. B. J. Weyll, a well-known citizen of Camden, died on Saturday, in his eighty-sixth year.

—Dr. R. Curtis Gray has removed to 345 Lafayette Avenue, Brooklyn, N. Y. Telephone call, "Bedford, 593."

—Miss Annie A. Hintze, head nurse at the Pennsylvania Hospital, has resigned, to accept a position in the American Hospital, at Rome.

—An epidemic of diphtheria was recently prevailing at Garner, Iowa, and all the schools there were closed. Deaths from the disease occurred daily.

—A wealthy citizen of Wilkesbarre, Pa., had not, it was said on November 24, eaten a morsel of food for two weeks. He persistently refuses to eat, insisting that he is dead and does not require food.

—Dr. Robert H. Bolling will take Dr. Cleveland's place as Senior Resident Physician at the Germantown Hospital, commencing December 1, and Dr. W. G. B. Harland will act as his assistant.

—The newspapers of November 21 reported that a physician in a suit for damages in a large city in the United States used the word "clonic," and four doctors called by the defence testified that there was no such word, either in the English language or as a medical term.

—Dr. J. H. McKellup, who was authorized by Governor Ross to thoroughly investigate the reported existence of glanders in Texas, has forwarded his report to the Governor. It states that the only section where glanders was found to have existed was in Dewitt county, where thirteen cases occurred among horses. All the affected animals have been killed.

—The Trustees and Medical Board of the German Hospital decided on November 20, that Dr. Carl Frese, Chief Resident Physician of the institution, should sail for Berlin to investigate Dr. Koch's recent discovery in the treatment of tuberculosis. Professor Ernest Laplace, of the Medico-Chirurgical Hospital, sailed November 20, on a similar errand.

—Dr. George T. Dare, for forty-eight years a practicing physician in Lancaster and Chester counties, Pa., met with a tragic fate at San Diego, Cal., a few days ago. He fell from a porch at the home of his son, David D. Dare, and one of his thigh bones was fractured. Being eighty-four years old the doctor's debilitated system was unable to withstand the shock, and death followed.

—A bazaar in aid of the Polyclinic Hospital, Lombard Street, above Eighteenth, will be given on December 3 and 4, under the auspices of the Ladies' Aid Society. The management has decided to make no charge for admission, trusting that those who attend will voluntarily contribute or make purchases. The bazaar will be made the occasion of affording opportunity to inspect the new hospital building, in which it is to be held.

—John Feeney created an uproar in a Chicago Court November 20, by smashing a rotten egg on the head of Dr. Kiernan, former physician in charge of the Cook county insane asylum. Feeney's sanity was being tried, and Dr. Kiernan was on the witness stand when the egg was thrown. Feeney then quietly turned over to an officer of the Court another egg, which he had in reserve in case the first one had missed its mark. The jury found Feeney insane.

MEDICAL AND SURGICAL REPORTER

No. 1762. PHILADELPHIA, DECEMBER 6, 1890. VOL. LXIII.—No. 23.

CLINICAL LECTURE.

OPIUM.

BY H. C. WOOD, M. D.,

PROFESSOR OF THERAPEUTICS, UNIVERSITY OF PENNSYLVANIA.

I propose to take up to-day the subject of analgesics, remedies used for the relief of pain. Of these *facile princeps* is opium: the inspissated juice of the unripe capsules of the *Papaver somniferum*, or poppy. It is a very complex body, containing the alkaloids morphine, codeine, narceine, narcotine, etc., also meconic, thebolactic and sulphuric acids, extractives, a volatile odorous principle, and other substances of no importance. Of these various elements in opium, morphine and codeine are the only ones used in practical medicine. Narcotine is of interest, as to it is usually ascribed the depressing and sickening influences of the drug. Hence its elimination from all other preparations is an advantage.

In the study of the preparations to be used, we find that there are only a few worthy of consideration. The dose of the solid opium is one grain. The extract—twice the strength of the solid opium—is a preferable preparation, as it has lost the alkaloid narcotine, which has been removed by ether. Laudanum, containing ten per cent. of opium, is given ordinarily in the doses of fifteen minims—about twenty-five drops—each drop varying from one-half to two-thirds of a minim, according to the size and shape of the vessel used as a dropper. The deodorized tincture of opium contains no narcotine or oleaginous principle. It is always to be selected when a strong internal form of the drug is wanted. It is prepared by infusion, being a watery preparation, containing only enough alcohol to keep the drug properly. It is less liable to sicken than any other form of the drug. Its drop is nearly a minim in size. Tinctura opii, acamphorata, or paregoric, has in every fluid ounce two grains of opium, besides camphor and oil of anise, which give it its characteristic taste. It is more constipating than other preparations of opium on account of the camphor, and hence is more suited to diarrhœa mixtures. Eighteen drops of paregoric are equal to one of the deodorized tincture. The only other preparation of opium worthy of our consideration is the so-called Dover's powders—pulvis opii et ipecacuanhæ. They are now made of eight grains of sugar of milk to one grain each of ipecac and opium. They are especially useful for their action on the skin, being a capital combination of an opiate and a diaphoretic. Their use with children is dangerous; as they are prepared on a large scale, and often being not well mixed, they may contain much more opium than is directed.

Opium given in small doses produces first a feeling of slight exhilaration. This is quickly followed by a sensation of quiet, a subduing of restlessness, a dreamy half-sleep which may continue for hours. The state produced is not one of stimulation of the reasoning powers, but rather a kindling of the imagination. Where there is no especial desire for activity, sooner or later, depending on the patient and the size of the dose, he falls into a quiet sleep, which is not to be distinguished in any way from ordinary slumber. He awakes with a slight dryness of the throat, some depression, nausea and impairment of digestion. For a few hours also there is apt to be constipation. Some cases however show marked depression of spirits, excessive nausea and vomiting, weak pulse and muscular debility, instead of the usual symptoms I have just gone over. The vomiting is apt to be increased by any change in condition, even of the slightest. It is almost diagnostic of this condition that the patient is quiet as long as he is in a horizon-

tal position; but on attempting to rise this vomiting again comes on. In some cases this condition of depression replaces the ordinary symptoms entirely. In other patients severe pruritus is common when the action of opium is going off. This may be so pronounced that it forbids the use of the drug. In children, especially young children, opium, even in very small doses, frequently produces different symptoms, causing most pronounced depression.

The phenomena of a large dose are divided for convenience into three stages. These stages are not sharply marked; they glide into each other with no sudden changes. The first stage can be called for convenience "the stage of quiet excitement." There is no real increase in cerebral power; there is a cerebral stimulation only from the pleasant effects which are produced. There is the peculiar stimulation of the imagination in which dreams pass in endless quiet succession before the mind. If the dose be quite large, this stage may be correspondingly short. In those who are in the habit of taking opium, there may be frequently actual increase in intellectual power. Then appear the characteristic phenomena of the second stage. The respiration is slow and deep; the pulse is slow, full and strong; the body is warm and dry; the pupils are firmly contracted; the face is more or less suffused. There is abolition of all cerebral faculties, but not so complete that the patient cannot be aroused. No matter how profound the sleep may seem to be, the sleeper can be wakened up. This is an important distinction, which separate these cases from those of apoplexy. If a patient fails to respond to proper stimuli, you can be sure that a more deadly drug than opium is operating. The respiration, which is slow and full, gradually falls in rate, although on arousing the patient it is temporarily quickened. It drops from sixteen to twelve, to ten, to eight, to six, to four in the minute. The pulse comes down from seventy-five to sixty; rarely does it fall below fifty. It is still full and strong; but it does not have the great mighty stroke of the digitalis pulse. In the development of the third stage we have the same phenomena, modified by the appearance of exhaustion. The pupils are still contracted; the unconsciousness has become deeper; the respirations are distant, slow and feeble. The surface of the body is bathed in a cold, clammy sweat. The pulse is small, running and rapid. If nature is left to herself, these symptoms deepen; the respirations become excessively slow, interrupted by periods of death-like silence; the countenance grows more and more cyanotic, the lamp of life is flickering; as death approaches, the pupils widely dilate, as if to allow the soul to escape. Rarely is the course of the drug's action broken by storms —convulsions—in the Anglo-Saxon adult; they are more common in the Asiatic and in children.

We will study the symptoms produced by opium for the purpose of seeing the method of their production. They are connected with the respiration, circulation, nerve centres and the pupil.

First, the action on the nervous system. Its chief action here is as a paralysant to the cerebral cortex. It was formerly taught and believed that it produced congestion of the brain; all that we know is that the protoplasm of the brain-cells is affected by its active principle. Below the cortex, the respiratory centre is early affected; this is proved by experiments in which it was found that in animals the drug's effect was not altered by section or stimulation of the vagi, showing that its action is on the centre itself.

Second, the action on the circulation. Gscheidlen cut the pneumogastrics in an animal and gave opium, and the slow, full pulse was not produced: proving that the drug acts on the inhibitory cardiac nerves. It is also probable that it acts on the inhibitory cerebral centres, stimulating them. This is demonstrated by the instantaneous great fall in pulse-rate following the injection of a large dose of the alkaloid into the carotid—that is, into the inhibitory brain centres.

I will not go into any elaborate discussion of the experiments in regard to the action of opium on the pupil. The pupil is contracted by direct action on the oculomotor centres; the dilation as death approaches is due to paralysis of the same. I suppose that about twenty per cent. of you will tell me on a subsequent interesting occasion that in the third stage of opium poisoning the pupil is dilated; confusing this final phenomenon with the condition existing throughout the stage.

To complete the survey of the general physiological action, two points remain to be considered. In small doses morphine is a quieter of peristaltic motion; by large doses it is increased. More important is

the glandular action of opium; it acts in a most marked way on the whole alimentary tract, checking secretion and causing constipation. It is a desiccant from the mouth to the stomach and intestines. This makes it a marked factor in producing indigestion and checking the hyper-secretions of some forms of diarrhœa.

The fate of the active principle of opium in the body has been somewhat uncertain in the past. It is undoubtedly absorbed, as the alkaloid or as an alkaloidal salt. Professor Wormley has maintained that the methods used by many chemists who have reported its elimination through the kidney have been faulty. Recently, however, Professor Wormley, through careful review of the subject with the new tests for morphine has obtained evidences of that alkaloid in the urine. In cases of suppression of urine a new source of danger is apparent with opium in the system; being unable to excrete it, the kidneys throw it back into the circulation, renewing its poisonous powers on the economy. Again, in old people with weak bladders, in which there is great retention of urine, there is danger of re-absorption of the drug and its entrance again into the circulation. In severe kidney trouble, opium is undoubtedly a dangerous remedy. Its use in uræmia, for the production of diuresis, is not only ridiculous but decidedly reprehensible. Morphine thrown into the system from the bladder or the kidneys, seems to act with increased power on the economy.

The physiological action of morphine in general is similar to that of opium. The symptoms of poisoning are the same; the therapeutic action differs principally in the alimentary canal. Morphine is less of a desiccant, causes less nausea and constipation. It is about four times as powerful in its action as opium.

When an overdose of opium is taken, it is the old time-worn rule of thumb that the patient must be kept awake. But sleep, in itself, under the circumstances is not an evil; unconsciousness does not kill. As far as that goes, a patient might remain unconscious until old age, for all the evil effects it produces. The real fact is that death occurs from failure of the respiration; occasionally, if respiration could be maintained long enough, heart failure may happen; but the respiration always fails first. As unconsciousness deepens, the sensibility of the respiratory centres grows less. Consequently involuntary breathing becomes less perfectly performed. Moreover, when kept partially awake, the patient suffering with opium poisoning can be made to supplement the almost suspended involuntary breathing by voluntary efforts. Hence, there is one overwhelming indication to maintain the respiration. First, evacuate the stomach of its poisonous contents. If possible do this with an emetic. But, in view of the fact that the peripheral nerves have been benumbed by the action of the drug and the sensibility of the centres in the medulla have been diminished, a powerfully stimulant emetic is the only one of service. The so-called mechanical emetics are good, and but little depressing: sulphate of copper, or, better, sulphate of zinc or mustard. Mustard flour is generally found in the household, and is efficient. A large tablespoonful in a tumblerful of warm water should be given at once; and the dose repeated in fifteen minutes until effective. Thirty grains each of sulphate of zinc and ipecacuanha may follow; to be repeated once or twice. Large draughts of warm water should be administered in the intervals and between the vomitings, to wash out the stomach. If this should fail, then the stomach-pump should be used. It is of no service when the opium has been swallowed in solid form. A fountain-syringe with rectal tube removed, or, in an emergency, a rubber gas-pipe may be used. The external end is elevated after the other end has been passed into the stomach; water is poured into the tube by means of a funnel until the stomach is full; then, without the tube being allowed to empty itself, it is depressed, when the flow of water will be reversed. Maintain the bodily heat as in other forms of narcotic poisoning. Arouse the patient chiefly to maintain the respiration. The breathing is fuller and faster when the patient is awake, and conscious effort is added. It is often surprising how an apparently unconscious man will keep on breathing at the word of command. Walking, shaking, shouting, flagellations with fine twigs are all measures to be used. But remember you can walk your patient to death; you can easily bring on exhaustion, which only increases the odds against his life. I have seen cases beaten black and blue under this treatment. It is wrong. The natural prostration of the third stage is easily increased. I wish to call attention to the intense irritation produced by the Galvanic or Faradic dry brush. This is an agent

which is strongly helpful in preserving consciousness; it is not depressing or exhausting, and leaves no trace behind. Attempts to polarize the phrenic nerve are useless.

The cold douche is an excellent method of restoring consciousness, stimulating at the same time the respiration. Supporting the head and shoulders over an ordinary wash tub and dashing on them ice-cold water, and water a little hotter than the hand will bear alternately, is good in its effects. There are two depressing factors in the system, the opium in the blood and the increased amounts of carbonic acid from the imperfect respiration.

There are three substances which are useful as agents for respiratory stimulation. In the early part of the century when I sat on the students' benches, it was taught that coffee did good by keeping the patient awake. The fact was true; the theory was useless. The chief good done by coffee is its stimulation to the respiratory centres. Coffee is preferable to caffeine because the empyreumatic oil which it contains is more efficient in preserving consciousness, and in this indirect way aiding the respiration. Hence unlimited quantities of black, strong coffee should be poured into the patient. Atropine as a respiratory stimulant is of the greatest importance in opium poisoning, when there is evidence of failure of respiration. There is no antagonism, in the strict sense of the word, between opium and atropine in their respective action on the eye. Opium contracts the pupil by influencing the nerve centres; atropine dilates the pupil by acting on the peripheral nerves. Hence when you are told to watch the eyes in giving atropine in opium poisoning, you have no safe guide. The proper thing to do is to watch the respirations. Giving no more of the drug than is necessary, for fear of the addition of atropine poisoning to that of the opium, and yet not afraid of its administration is the correct course between Scylla and Charybdis. Do not give large doses, but frequent doses. A fiftieth or fortieth at once, followed by a sixtieth in fifteen, twenty or thirty minutes. As the respirations grow more frequent, withhold the drug. Strychnine should be of service; but it is rarely used. Again, alcohol, in the stage of depression, sustains the arterial circulation. The bodily temperature can be maintained by the use of external heat.

Whenever life is seriously menaced, artificial respiration should be resorted to. For this purpose a bellows and tube are required. From twelve to fifteen times a minute the lungs should be filled a little fuller than naturally. Tracheotomy has been suggested for the insertion of the tube, but it is unnecessary. All that is needed is some form of face mask that will cover both mouth and nostrils. The ordinary form used by dentists in nitrous oxide gas inhalation is the best and simplest for the purpose. Transfix the tongue previous to its use with a needle and hold it out by the accompanying thread. If you find that the lungs fail to expand, insert the ordinary tube used in intubation. I believe that by these means nearly every case can be saved; life being maintained until the alkaloid is eliminated.

The first indication for the use of opium is for the relief of pain. Of all the remedies that we have as analgesics, the anæsthetics and opium are the only true examples. The anæsthetics are used for the pains in which the agony is short, but while it lasts is so great that it seriously threatens life by paralysis of the vital functions. Opium, on the other hand, is used where there is any permanency to the pain. In neuralgias and chronic disease, it should be used with the greatest reluctance, for fear of the formation of the opium habit.

The second indication is to produce sleep. Formerly opium was the king that reigned supreme in this kingdom; but the territory has been invaded by many newer drugs. So that now, practically, opium is not used for this purpose, except in the sleeplessness caused by suffering. In confusional insanity, especially that form called delirium tremens, it must be used with care, so as not to overwhelm the nerve centres. Even here other remedies are more highly esteemed. In certain low fevers it can be advantageously employed. For the restlessness and insomnia of typhoid it is among the safest agents; and yet there is an almost universal prejudice against its use here. It is often combined with chloral with excellent results.

Thirdly, to allay irritation. In sudden attacks of hemoptysis, the morale of the patient is always upset; the spitting of blood is regarded by the laity as pathognomonic of phthisis, and phthisis means death to them. Again, it is of service in great mental shock of any form. In great peripheral irritation, as in confluent small-pox, where the patient is tortured with untold agonies, its use is indicated. Beyond the relief of pain there seems to be a sustaining power in

opium produced by benumbing the centres of organic life; hence in widespread inflammations where systemic collapse is threatened, opium exerts a life-saving power. There was a time when the universal treatment of peritonitis was the administration of opium. It is good treatment beyond all doubt in proper cases, and is still largely used. In sthenic cases, depletion by leeches or bleeding should be employed at the outset; or the depletion can be obtained by free purgation with saline purges. I remember one case, a third-year medical student, who had just passed his final examination. Run down in health, he had taken the opportunity between examination and commencement to work in his garden when the weather was cold and blustery. Shortly afterwards he was seized with a furious abdominal pain, agonizing in its intensity. He lay in this condition when I was called to see him. I immediately ordered his abdomen to be covered with as many leeches as would cover it; following this up with liberal use of calomel and opium. Speedy amelioration of the symptoms followed, with subsequent recovery. The opium, to do good, must be given in doses to get the systemic effect: the patient must be more or less narcotized. Closely allied to its use in peritonitis is the service of opium in severe enteritis, where there is a paralytic condition of the muscular coat of the intestines. Here constipation from obstruction occurs. The use of irritant purgatives only serves to increase the trouble. Opium, by allowing the muscular coat to be relieved from spasm, apparently acts as a cathartic. One case of this sort comes to my mind now. A woman ate corned beef and cabbage for dinner. She probably indulged in it for dessert, and undoubtedly enjoyed it for supper, serving up what was left for breakfast. A furious abdominal pain, with obstinate constipation appeared. She was filled with irritant purgatives, all without effect. She remained obstinately constipated. On seeing her, I learned that, for the first twelve hours, she had spent the time in leaning over a chair back, pressing it into her belly. When I saw her she was on her back, with her knees drawn up. The handwriting on the wall was there, if any one would but read. The first pain was the spasm due to the cramp of the intestines, which was relieved by pressure; the second pain, intolerable in its character, was the lighting up of inflammation. The lulling use of opium and the application of leeches brought about a change. Profuse alvine discharges began. Then began a terrible struggle for life, in which the woman finally won. Castor oil, to bring away the contents of the bowel, in these cases is a pleasant non-irritant laxative, which is generally effective. In acute vomiting—hyperemesis—opium is our best remedy, especially if irritation is present. In more chronic forms, its administration should be made more reluctantly. As an anti-emetic, it is best given by the rectum, in suppository or injection. The extract of opium is soluble in water and free from narcotine, making it the preferable preparation. In irritant poisoning in the gastro-intestinal tract, opium is indicated after the antidote.

Opium is used to check secretions. In bronchitis opium checks secretion. Nature's method of curing this disease is by free secretion; so beware in giving opium in this trouble. Only give enough to relieve unnecessary and exhausting cough, never checking the cough unless it is out of proportion to the results. In ordinary cases of bronchitis it is better not to give the drug, reserving it for irritable subjects. To check the excessive secretion in diarrhœas, opium is useful, and it is often curative in its results when the exudation is excessive or is imperiling strength. It is combined usually with other agents. In dysentery it is used rather to relieve pain and tormina than for decrease of the secretions. Cold water, ice or iced water is a useful adjunct. In diabetes opium is useful. In diabetes insipidus other remedies are of service, but in the mellitus form it is imperative that opium in some form should be given without regard to the formation of an opium habit. Given continuously and in large doses, it acts on the nerve centres, checking sugar formation.

Opium is valuable as a sudorific. In the shape of Dover's powder, opium is largely used in the forming stage of muscular rheumatism, or of a "cold." In "soaking the feet"—which is a domestic term for a pedilurium—we find we have a valuable aid to sudorific remedies. The patient is undressed; his limbs are immersed to the knees in hot water simply, or water containing mustard flour. In five minutes, more water, a little hotter, is added until the expiration of twenty minutes. Then the patient is bundled off to bed. Previously a Dover's powder has been administered; and on being placed in bed, the patient should drink one or two tumblerfuls

of a very hot and strong lemonade, containing one, two or three tablespoonfuls of whiskey or brandy. Care must be taken to avoid any exposure for a day or two. Anointing the skin with the oil of sweet almonds or some other bland fat appears to have some power in preventing the deleterious effects of cold after sweating.

In the administration of opium, each preparation has its peculiarities. The pill of opium, kept in the drug store for any length of time, dissolves out slowly in the alimentary canal. It should, therefore, never be used to produce a profound constitutional effect. On the other hand, for this reason many practitioners prefer this form for action on the intestines; the pill reaching this point practically unaffected. Paregoric should never be given except when its constipating influence is desired. Children bear opium badly. Never give more than one-third of the dose for children as indicated by Young's rule. Never press its use, as in the adult, lest there be developed a tendency to sudden collapse; or to convulsions.

Chronic opium poisoning—commonly called the opium habit, deserves our attention. I believe that it is much more common in the extreme Western States than it is with us. It is far worse than the alcohol habit. There is nothing diagnostic about the symptoms. There is, perhaps, perpetually a little ill-health, without apparent cause. The symptoms are bizarre and irregular. There is haziness about the patient's actions; his normal sense and faculties are clouded; he is given to false statements or to prevarication; in other words he is a great liar. Never imperil your reputation by endeavoring to treat such a patient unless he is so placed that you have entire charge of his life. *Habitués* will come to your office and swear they are not touching a grain of opium; they will gladly pay you big fees; and yet all the time they are revelling in the drug. They will corrupt nurses and attendants by bribery if placed under surveillance. There are three ways for the withdrawal of the drug: first, taking it away at once; second, withdrawing it in from five to ten days; and, third, taking months for its removal. If it is done abruptly there is danger of collapse, excessive malaise, insomnia, complete loss of appetite, vomiting, terrific diarrhœa and general checking of secretions. When seven to ten days is the limit set for its withdrawal, I have never seen a case that produced symptoms that could not be controlled. The slow method, I believe to be uncertain in its results. Proper feeding is of great service in relieving distressing signs. The use of electricity is good, not only for its effect on the system, but also to distract the patient's attention from himself. Massage serves the same dual purpose. For the diarrhœa, bismuth and carbolic acid are the best remedies. External warmth, hot drinks, broths, stimulating easily-digested food, are indicated. Bromide of potassium, quinine, etc., can be employed as needed. In withdrawing the drug it is better always to deceive the patient as to the quantity of the drug which he is getting. There are various methods for this purpose. When the morphia is taken hypodermically, it can be gradually replaced with distilled water in the injection. When morphia is taken by the mouth, make it up with quinine; this disguises the taste, rendering it impossible for the patient to judge the amount he is receiving. Quinine is an excellent tonic, the powders are kept the same size, quinine gradually replacing the morphine. I had a lady sent me who was taking paregoric. Here we had a mixed habit. She was drinking three pints of paregoric a day. This is equivalent to about a pint and a half of brandy. I ordered her a bottle of paregoric of large size. The druggist also made a similar bottle of paregoric, only the opium was left out. As fast as she drank the regular paregoric the bottle was kept filled from the spurious preparation. In this way the opium was practically out of her bottle in a week's time.

COMMUNICATIONS.

TREATMENT OF GANGRENOUS WOUNDS AND DISEASES.[1]

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Many years ago before the late war I determined to institute a series of experiments to ascertain the capability of local and general treatment of all gangrenous wounds and diseases that came under my care either for the prevention or for the arrest of the extension of gangrene.

[1] Synopsis of a paper read before the Southern Surgical and Gynecological Association, at Atlanta, Ga., November, 1890.

The object was to find local agents possessing active properties as stimulants of vital action in the affected parts, also as means of disinfecting and deodorizing gangrenous sloughs, and of hastening their final separation, and the establishment of a healthy basis for granulation. In cases coming under my care I found the old deodorizers fail to accomplish these objects. I then employed a concentrated solution of zinc sulphate and dilute sulphuric acid as a local application which seemed to meet all the requirements. The first case in which it was applied was in the following formula.

℞ Zinci sulphatis . . . . . ℥i
Aquæ . . . . . Oi
Acid. sulph. dil. . . . . f℥ss
M.

After the free application of hot water, the solution was applied every three hours on raw cotton. In the course of two days the sloughs separated rapidly, leaving a perfectly clean, healthy basement for granulation. This solution evidently possesses active antiseptic properties. It is an admirable deodorizer, it is clean and it cleanses the parts effectually.

In cases of great loss of sensibility in the parts, weak circulation and reduction of vital action, I know no agent better calculated to arouse nervous activity and dormant vitality; for as soon as the sloughs are removed and the living tissue is exposed, it gives rise to intolerable pain. I have used this solution with benefit in all forms of gangrenous affection and wound, some limited, others extensive and associated with septicemia. It possesses no caustic property, and it contracts and shrinks the sloughing tissues rapidly, while its action on the living tissues is to stimulate renewed action and sensibility where the capillary circulation is languid, the vaso-motor action sluggish, the circulating blood about to become stagnant.

During the late war I had frequent opportunities of using this preparation, and since that time also. It was cheap, abundant, easy of application and exceedingly cleanly, and did good service in my field hospital practice in the Confederate Army.

Another most admirable antiseptic, disinfectant and stimulant of vital action, found by me invaluable in the local treatment of gangrenous affections, is bromine in solution. In cases of infectious gangrenous inflammation such as hospital or gangrenous erysipelas, where the process is propagated by an infection, bromine is especially applicable, as it destroys the infection, subdues the peculiar infectious inflammation and in this manner prevents mortification. However we may differ in regard to the peculiar nature or form of infection that causes gangrene of the infectious variety, it is a fact well established that bromine is one of our best correctives. I have in too many instances seen it correct sloughing wounds and diseases, by subduing inflammatory action and destroying the infection to doubt it for a moment. I have used these different preparations alternately with benefit.

I have used, advantageously, hot-water applications from 110° to 120°, made to the parts for fifteen minutes every one or two hours. Sterilized water at this temperature is grateful to gangrenous parts. Cool applications are unpleasant, because of the chilliness they impart. In one of my cases the patient was not satisfied when the water was below 130°

I have used hot water on unhealthy wounds, with feeble circulation and reduction of neurosis and vaso-motor action, before or after the development of sloughing, for more than forty years, both in civil practice and during the late war in field hospitals. I saw this practice thoroughly applied and tested in the surgical practice of my preceptor, the late distinguished Dr. Benjamin W. Dudley, of Lexington, Ky. He applied hot water, that had been boiled and then reduced to the proper temperature, to all wounds of an unhealthy character and to all sloughing affections and always with benefit.

I have repeatedly seen Dudley apply hot water that had been boiled and reduced to 105° to the eye in cases of violent purulent ophthalmia, with the effect of subduing the engorgement and inflammation and of preventing that most untoward misfortune, sloughing of the cornea. This was more than forty years ago. I have never seen sloughing of the cornea where this method was faithfully carried out.

One of the chief objects in treating gangrenous affections and wounds is to improve the condition of the blood, to strengthen the circulation and to counteract the tendency to collapse. Hence the importance of general sustaining treatment. An abundance of nutritive food, alcoholic stimulants, invigorating and vitalizing remedies I have seen, in army and private practice, tide over forlorn cases, that would otherwise have died. Gangrenous patients—provided

the stomach is in good condition—can take large quantities of alcohol with benefit. I have given ten grains of carbonate of ammonia and two ounces of whiskey every one or two hours with marked benefit in establishing reaction in the threatened collapse from gangrene, and in pyemic fever. In those cases of gangrene arising from embolism or thrombosis I have found carbonate of ammonia, strychnia and nitro-glycerine with iron the best combination for establishing a collateral circulation in connection with alcoholic stimulants and nutritious food. In cases occurring during recent years in my practice, I have found nitro-glycerine, in connection with the remedies mentioned, do well. I have observed in sloughing affections that as soon as disinfection of the diseased tissues by the action of bromine or the zinc and sulphuric acid solutions has been effected, the condition of the general system responds promptly and not before. Hence in treating the sepsis of gangrene we must ever be active in cleansing, disinfecting and stimulating the vital action at the seat of the local lesion.

The following cases are examples of what may be effected by the treatment of gangrene by the method just described.

Case 1. Gangrene of the external genitals in the female. I was called to see this patient many years ago. She was a married woman in indigent circumstances. The patient had been delivered by a midwife about a week before. The entire external genital organs, from the mons veneris to the perineum, or very nearly to the anus, including the labia, nymphæ and fourchette, were in a state of gangrene. The organs were enormously swollen, black and pultaceous, and emitted an ichorous discharge that filled the apartment with an intensely fetid odor. In this case hot-water applications were made, at 120°, every three hours, and after each application the saturated solution of sulphate of zinc and dilute sulphuric acid was applied on raw cotton to the parts. The tincture of iron, stimulants and nourishment were administered freely. In forty-eight hours the gangrenous parts had separated and sloughed off, leaving an entirely clean, healthy surface, ready for granulation. All offensive odors had disappeared and the serious symptoms of septicemia, which threatened the patient, subsided in due time.

Case 2. Hospital gangrene of the foot. This was a sequel of a severe gunshot wound, causing an extensive lacerated wound and shattering all the metatarsal bones. This patient, when brought into his field hospital, after one of the great battles near Richmond, had all the symptoms of gangrene, which was rapidly extending towards the ankle. Hot-water applications were made every two hours, and the foot was enveloped in raw cotton saturated with a solution composed of sulphate of zinc, ℥j; water, Oj; dilute sulphuric acid, f℥ij. This was reapplied every three hours. Stimulants, nourishment, iron, quinine and carbonate of ammonia were prescribed. Although the patient's strength was greatly exhausted and he had symptoms of pyemia, he rallied, the gangrene ceased, the sloughs shrivelled and separated, the offensive odor subsided, and a healthy basis remained. The extensive wound finally healed.

Case 3. Dry gangrene of the foot. The patient was a man, 56 years old, whose foot became inflamed, swollen and painful from probable contusion of the popliteal artery, as no pulsation could be detected in the tibial or perineal arteries. The patient had been subject to carbuncles, the probable cause of thrombosis. The gangrene covered the entire foot and toes, except the plantar surface. The general condition of this patient was bad, his pulse was feeble and frequent, and his complexion sallow. There were rigors and fevers daily, with copious night-sweats, great depression of mind, and total loss of appetite. After the various gangrenous tissues, including the skin, muscles and tendons, down to the periosteum had been dissected away, this was found to be gangrenous also. Neither Surgeon-General Hamilton, who saw the patient, nor I could detect pulsation in the arteries below the popliteal. Hence the inference was made that there existed embolism of that artery, and that a feeble collateral circulation existed below that point, not fully capable of supporting the limb. Dr. Hamilton thought amputation would be necessary. But the patient was given the full benefit of conservative surgery. He was ordered the tincture of the chloride of iron, in thirty-drop doses, the hundredth of a grain of strychnine, the same quantity of nitro-glycerine, and three grains of quinine every three hours for the purpose of arousing vaso-motor action, establishing a better collateral circulation, and arresting the gangrene. He took also an abundance of stimulants and nourishment. The concentrated solution of zinc sulphate and dilute

sulphuric acid was applied to the gangrene, also frequent hot-water applications at 130° to the parts. The aspect of the gangrenous parts improved under this treatment, but at certain points where the sloughs had separated the solution excited intense pain, and its use was discontinued. A solution of bromine, containing f℥ij to the pint of water, was substituted. The bromine application was exceedingly soothing, and acted as an admirable antiseptic, disinfectant and stimulant of vital action. The gangrenous inflammation was duly subdued; the local infection was corrected, and the extension of the gangrene was arrested. When all the sloughing tissues had separated and been thrown off, a clean base was left, with a fair degree of circulation. But a portion of the tarsal, and all the upper surface of the metatarsal and phalangeal bones was exposed. Under the local and general treatment, granulation developed rapidly, healthy, vigorous and full of florid blood, indicating, if the conjecture was correct, that a sufficient collateral circulation had been established to arrest gangrene and repair damages. All the exposed bones were finally covered with newly formed tissue and the large wound healed perfectly. But it appeared subsequently that at several points, more particularly the articular surfaces of the formerly exposed bones, there was necrosis, causing ulceration of the newly formed tissue. To these points of necrosis, applications were made daily of dilute muriatic acid of the official strength. This has been my method of treating necrosis of bone for some years, and the results have been good. It is surprising how rapidly the phosphates and carbonates of lime in the necrosed bone are converted into the soluble chlorides, and disintegrated and dissolved by the action of the acid. After disintegration of the bone at these points, granulation would again form and heal over the opening.

Case 4. Phagedena. This was a case of gangrenous phagadena from chancroid. In this case there was gangrene of the prepuce, of the glans penis and skin on the dorsum. The general condition was bad. The local treatment consisted in frequent hot-water applications, followed by a solution containing zinc sulphate, ℥i; water, a pint; dilute sulphuric acid, f℥ii. The patient took internally thirty drops of tincture of iron and five of muriatic acid every three hours, with stimulants and nourishment. In the course of two days the offensive odor had ceased, the gangrene had been arrested, the sloughs were cast off, and a healthy base was exposed. The glans, prepuce and skin on the dorsum sloughed off, and the parts healed ultimately.

Case 5. Gangrenous carbuncle. The carbuncle in this case was very extensive, covering the entire back of the neck, from the scalp to the sixth cervical vertebra. The entire mass of tissue became gangrenous down to the spinous processes of the cervical vertebræ, including the muscles and tendons. The patient lost the power to a considerable extent of extending the neck. A solution consisting of sulphate of zinc, ℥iss; water, a pint; dilute sulphuric acid, f℥ss, was applied on absorbent cotton every three hours; and, as the condition of the patient was extremely prostrated, tincture of iron, quinine, strychnia and nitro-glycerine were given every three hours. The local and general treatment enabled the system to arrest the gangrene, throw off the sloughs and finally to heal the large deep cavity.

In conclusion, I would urge discrimination in the adaptation of the method of treatment adopted in gangrenous affections to the variety, form and origin of the disease. There are types of gangrene purely septic in origin, in which the sublimate dressing is thoroughly applicable. There are other cases, such as hospital or camp gangrene or gangrenous erysipelas, in which the bromine treatment surpasses all others. Then, also, there are cases of either a traumatic or idiopathic form, in which the vital and vaso-motor functions of the parts are paralyzed and there is no tendency to establish the line of demarcation, and the tissues are rapidly broken down. Here a potent stimulant to vital action is needed, as well as an antiseptic, such as the strong solution of zinc sulphate and dilute sulphuric acid.

Care of the Insane in New York.—Since the murder of Dr. Lloyd by a lunatic, a new order by the State Commission in Lunacy states that no insane patient in the custody of an institution must be allowed to go out on parole who, in the medical superintendent's judgment, is dangerous to himself or to others; that no parole shall be granted for a period longer than thirty days; and that, on the escape of a patient, prompt and vigorous measures must be taken to secure his return.

ANTISEPTIC MIDWIFERY.[1]

BY A. S. MAXSON, M. D.,
MILTON JUNCTION, WISCONSIN.

The antiseptic treatment of the puerperal condition originated from antiseptic surgery and has developed with equal rapidity. Although the statistics show a remarkable progress in the reduction of puerperal septicemia, many an excellent practitioner is rather skeptical regarding the method. Dr. Leopold reports, out of three thousand one hundred and ninety-six women confined in the Dresden Hospital between May 1, 1884, and Sept. 1, 1886, four deaths from septic infection, or .12 per cent. Dr. Invoeffs, from Moscow, reports seven hundred and fifty-six labor cases, with no death from septic poisoning. In the Russian, German, Bohemian and Austrian hospitals, the septic death rate was 1.3 per cent. between 1874 and 1884; but since 1884 it has diminished to .42 per cent. During the year 1888, four hundred and sixty-six women were confined in the Boston Lying-in Hospital, with the death-rate of but one from septicemia, or .22 per cent.

The use of antiseptics in private midwifery practice in Germany is compulsory by law. Cullingworth says that "puerperal fever, both in its fatal and non-fatal manifestations, may be practically stamped out." Of course, the method of working must depend upon a correct understanding of conditions and methods of infection.

A. Döderlein, of Leipsic, has made a very important experiment regarding germs in the lochia of normal puerpera and the septic condition of young mothers. He says: "Under normal conditions the lochia from the uterus contains no fungi, while that from the vagina contains numerous germs of different kinds. The lochia from the uterus can, under normal conditions, be injected into animals without producing any reaction, while that from the vagina may produce abscesses. The existence of germs of any kind in the puerperal uterus will, as a rule, cause elevation of temperature. After the temperature has fallen, it will be found that the lochia from the uterus is again free from germs. . . . The lochia from the uterus of fever patients will produce appearances of infection in animals. Only in those cases where there are so few germs that the febrile disturbance is slight will the lochia produce no effect in animals."

As to the kind of antiseptic used, there is much diversity of opinion. Corrosive sublimate, one of the most efficient germicides, has caused poisoning in a number of instances. I feel, as Dr. Wm. L. Richardson says: "While many authorities are willing to admit the superiority of corrosive sublimate as a germicide, not a few, however, hesitate to recommend its adoption in general practice, owing to the danger of mercurial poisoning." From the sublimate vaginal douche, Maurer has reported death. Dr. Emile Blanc is quite apprehensive regarding the sublimate vaginal douche, but still thinks best to continue its use except in cases of post-partum hemorrhage, renal disease and anemia, where it should be displaced by carbolic acid. The strength of the sublimate injections has, from the time of their introduction, been gradually reduced in strength by Stadtfeld and Sänger and others from 1 in 1,000 to 1 in 2,000, then to one in three or four and, now five thousand, with one in eight thousand in post-partum hemorrhage, etc. The *Annual* of 1890 reports twenty-two cases of sublimate poisoning.

The danger of poisoning has been sought to be obviated by a post-sublimate injection of a 2 to 3 per cent. solution of carbolic acid, or by pressing the perineum down, so that all the sublimate injection will run out, or by turning the patient on her side or raising her up. All these means are recommended by renowned men. Fearing the possible effects of active poison in vaginal or uterine injection, and considering their inconvenience, I diverged from the path of my fellow-practitioners. I have recently found that others have done likewise, but used different medicines. Two years ago I used corrosive sublimate, 1 to 2,000, or carbolic acid, 2 per cent., for vaginal injection both before and after delivery. This I followed with antiseptic pads made out of napkins dipped in 1 to 1,000 sublimate solution and dried. In from one-half to two-thirds of the cases the lochia would remain without putrefactive odor throughout the course of the puerperium, and there would seem to be no fever.

Still fearing my injections, and being dissatisfied with their results, I used a creoline injection of 1 per cent. mixture, either just before, or before and after labor, and sopped

[1] Read before the Central Wisconsin Medical Society, Sept. 30, 1890.

the vulva with creoline mixture once in from six to eight hours, and used sublimate cotton on the napkin next to the vulva. The results have been quite satisfactory to both patient, nurse and myself. The lochia has remained free from the odor of decomposition throughout its course. The temperature has remained normal to within one degree. The rise of temperature does not always depend upon septic poison or inflammation, for I have noticed some cases to have a rise of one degree or less immediately after labor, and in twenty-four hours the temperature was normal.

CASE OF A HERMAPHRODITE.

BY D. J. TILLOTSON, M. D.,
BUFFALO, N. Y.

To the embryologist and the anatomist there is probably nothing in the line of human monstrosities of greater interest than the hermaphrodite, true or spurious; but the physicians of the present time have hardly given this subject as much attention as did those of the past, and it would seem that, with the increased power of observation given us by the microscope and the many new rays of light that have been thrown upon the subject of embryology, the entangling of that group of cells in the embryo which eventually become the internal and external genital organs would prove a subject of which much might be learned and written from both a demonstrative and a speculative point of view.

In the history of noted cases of hermaphrodites, much that is interesting has been related; and, aside from the popular interest attached to these individuals, we may learn much that will guide us in our advice regarding infants born in this condition. In these cases our opinions are asked when we least expect it, and our conclusions must be arrived at quickly. These conclusions often decide the future of an individual, and should our decision chance to be wrong, in after years it may humiliate the family and the person, and ruin the reputation of the physician in that community; for what woman would employ an obstetrician who would be guilty of incorrectly diagnosticating the sex of her child?

It is not the object of this article to dwell upon the whole subject of hermaphroditism, but to present and describe one case, which the writer was called to see within a month after his graduation in medicine.

On April 26 I was called to attend a boy said to have colic. I found my patient to be a child four years old, bright, and to all outward appearance a vigorous, healthy boy. He had a disposition when well to romp and play and to engage in boyish sports. In figure he presented all the characteristics of a boy of his age. He had a large head, heavier features than a girl of same age, broad and square shoulders, full chest and a pelvis narrow in comparison with the shoulders. I think one would be inclined to pronounce it of the male rather than of the female type.

On raising the little fellow's shirt, to palpate his abdomen, I discovered the state of the external genital organs, and made a thorough examination of the same. The mons veneris was very prominent, broad and rounded, and contained an abundance of adipose tissue. After careful search in the regions of Poupart's ligament, neither inguinal ring, spermatic cord, testicle nor ovary could be found—the result in that direction being perfectly negative. From the mons, two ridges covered by integument extended backward and downward exactly like labia majora, fading away before they reached what would be the posterior commissure and *fourchette*. These were covered by true skin, except on their inner and upper portion, which was true mucous membrane. Upon careful manipulation of them nothing was revealed but the characteristic feel of adipose tissue. From between the labia, and from the normal position of the clitoris, protruded an organ which was one and one-half inches in length in the flaccid state, and two inches long during an erection. At the proximal end it was half an inch in diameter, triangular in shape, gradually tapering to the distal end, where it was the size of a slate pencil. About two-thirds of this organ was covered with true skin, which was movable, but not to the extent of that of the normal penis. The outer third was covered with what was probably originally mucous membrane, but had become thickened, presumably by friction on the clothing. It was dull red in color. There was no glans, no prepuce, no corona. On the tip it was perfectly smooth, even possessing a notch or dimple where the meatus urinarius would naturally be, if the organ were a penis.

This organ was oval in shape—its anterior

two-thirds being flattened on both superior and inferior surfaces, and was evidently made up of corpora cavernosa. About one-half inch from the body, and on the inferior surface, was a slit about four lines in length, and it was through this opening that the child urinated. Only as far as this slit could the corpora spongiosum be felt. The child was unable to urinate in the standing posture without soiling its clothing, and insisted upon assuming the squatting position when passing water.

Between the labia, and below this penile organ, was nothing but a slight concave surface, covered also by true skin, which over its whole extent was dense and resisting to the touch and appeared to be of the same structure and a part of the perineum. Along either side of this clitoris, or penis, and for about one-half its length and extending over on to the internal aspect of either labium, was a row or line of small nodular bodies, reminding one of the carunculæ myrtiformæ. It occurred to me that these might be the remains of some structure which had at some time been removed; and, on questioning the mother, she said a doctor had cut something which he said would make the child "all right." But the mother could not tell what was cut. From the position of these ridges I should judge the organ had been bound down by some membrane, and was released by the operation, or that a structure analogous to the nymphæ or labia minora had been cut away.

An examination per rectum, to try to detect the internal arrangement of the organs, could not be obtained.

In presenting this, my first medical article to the members of the profession, I beg their indulgence, which I know they will willingly grant. This case being one of my first, and believing it to be of more than ordinary interest, I decided to give it to the profession.

I wish here to acknowledge the kindness of Dr. A. M. Ross who is ever ready with pencil and pen to aid in the advancement of the cause of medicine.

Can any operation benefit this child?

CHOCOLATE LAXATIVE.

℞	Powdered cocoa	℥j
	Sugar	ʒij
	Castor oil	f ʒj
	Vanilla	q. s.

M. Make pastilles No. xii.

CASE OF TROPHIC AFFECTION OF THE THIRD PHALANGES.[1]

BY E. H. COOVER, M. D.,

HARRISBURG, PA.

On October 22, 1890, Mrs. D., thirty-six years old, consulted me about a very singular affection of the third phalanges of both hands. After a careful examination of the case, I admitted to her that her condition was both peculiar and new to me. Two days later she consulted me again. Just as she came in the office I was reading, in the *Journal of the American Medical Association*, October 18, 1890, an abstract of a paper by Rosenbach on an "undescribed trophic affection of the third phalanges," taken from the *Centralblatt für Nervenheilkunde*, August, 1890. Rosenbach claims to have discovered a hitherto undescribed trophic disturbance in the third phalanges. My case is a typical one, as described by Rosenbach, who says: "The disease consists essentially in an enlargement of the tubercle at the base of the phalanx, preceded and accompanied by pain in the part." Rosenbach says the disease is found almost exclusively in women from 30 to 50 years old, and is especially frequent in those approaching the climacteric. He has seen one or two cases in men, but it is relatively very infrequent in them as compared with the number of cases occurring in women. The disease, he says, is usually symmetrical, attacking both hands in the same way, and it confines itself strictly to the dorsal side of the third phalanx, the thumbs always remaining sound. It is preceded and accompanied by changes in the sensibility, formication, heat flushes, numbness, etc., in the region of the ulnar and radial nerves. In my case the joints are enlarged, the dorsal muscles of the third phalanges are atrophied, although the skin has a perfectly normal appearance. The radial and ulnar pains often extend to the elbows. There is some difficulty in grasping and holding small objects, unless the patient is looking at them; as soon as she turns her eyes from the objects held, she is liable to let them drop. The thumbs are not affected.

Rosenbach attributes the affection to trophic disturbances in the nervous supply of the periosteum, similar to the special

[1] Read before the Dauphin County Medical Society, November, 1890.

changes in the nerves of the skin, found in herpes. The differential diagnosis lies between arthritis deformans and gout. The first is distinguished by a very different localization—in the large joints and in the thumb, by the irregularity of the swelling, and by the involvement of the joint's surfaces, which remain free in the trophic disturbances under consideration. Gout is less easily differentiated; but we have the general diathesis, and above all the slow increase in the enlargement, without redness or swelling of the parts; while the peculiar local nervous symptoms are wanting.

The case which I saw was to me both peculiar and interesting, and as such I give it to the profession in general.

In regard to the treatment—I first administered tincture of nux vomica, and the improvement was slow. I then gave the patient nux vomica and phosphorus, which improved her condition more rapidly. With this medication, combined with a good nourishing diet, and the avoidance of severe muscular exercise, the patient's hands are growing steadily better.

New York Correspondence.

NEW YORK LETTER.

New York Academy of Medicine.—Ankylosis of Jaw.—Gonorrhœa and Stricture at three years of age.—Remarkable Extra-uterine Pregnancy.—Peritonitis in Infancy.—Rare Fracture of Clavicle.—Applying Plaster Jacket.

The Section work at the New York Academy of Medicine during the week ending November 15, presented several points of interest. In the Section on Surgery the Chairman, Dr. Robert Abbé, showed two patients upon one of whom he had operated ten years ago for anchylosis of the jaw. The result had been restoration of the function, immediate and permanent. His second case was that of a young woman who, for fourteen years, had been unable to move her jaw, food being pressed into the mouth through the gap left by two absent incisors. Dr. Abbé hoped to get good results from operative interference in this case also, but thought that the only method worthy of adoption was to cut down from without and remove a wedge-shaped segment of the inferior maxilla. This would ensure a good false joint.

Dr. Abbé also reported a case of gonorrhœa in a boy three years old, followed by tight urethral strictures six months later, requiring internal and external urethrotomy. The patient, an otherwise healthy child, was brought to him suffering with incontinence of urine, pain in the urethra and a slight discharge resembling gonorrhœa. Nine weeks before, the child had been tampered with by a young woman, who had been rescued from the streets and given occupation in the house of the child's parents. Within two weeks, he had a swollen penis, urethritis, incontinence and pain. The child was treated by urethral irrigation of a 1:8,000 bichloride of mercury solution. Gonococci were found in the discharges. Cure had followed in a short time. Six months subsequent to his being sent from the hospital cured, his mother had noticed him in great agony vainly trying to pass water. He was again brought to the hospital, when his urethra was found impassable even to the smallest instrument. His bladder was aspirated and about one and a half pints of urine was withdrawn. Aspiration was repeated until the third, when examination under ether showed three anterior strictures and one tight one at the membranous portion of the urethra, the latter only just admitting a filiform bougie. The strictures were dilated gently, but the deep one was so dense that urethrotomy was resorted to. The anterior ones were cut up to No. 22, French, with the Otis urethrotome. It was found to be a tough gristly stricture. Perineal drainage we continued for two days, when a No. 24 was found to slip painlessly into the bladder. After the seventh day all the urine had passed through the natural channel.

Dr. W. W. Van Arsdale said he had met with a great many cases of what he believed to be gonorrhœa in very young children. He had seen three during the past month. The youngest child was ten months old, the other two were one year, and four years, respectively. When it was remembered how the families of these children were crowded together, it would readily be understood how great was the chance for infection. The disease was quite difficult to treat, because of the smallness of the urethra. One troublesome feature was that the external parts became eczematous, owing to the accumulation of the discharges; and this was apt to lead to stricture of the meatus.

Dr. T. H. Manley reported a remarkable and unique case of ectopic pregnancy, presenting specimens, and introducing the patient from whom these had been removed. He said he had been called to see this woman after she had been under the care of two other physicians. The clinical indications were those of septic invasion resulting from peritonitis. In the region of the iliac fossa on one side there was a protrusion, which on palpation suggested the presence of pus. The history elicited was, that for about four months the patient had considered herself pregnant and had noticed nothing abnormal to this condition. She had, however, recently fallen over some loose planks left by builders on a sidewalk. Quickly supervening upon this accident had come a train of symptoms which had culminated in the condition in which the patient was found by Dr. Manley. There was high temperature, rapid and feeble pulse, tympanitis and suppression of urine, stoppage of bowel action and great prostration. Laparotomy seemed the only thing to do, and even this the operator had undertaken most unwillingly. On cutting down over the protrusion—instead of pus, blood clots were found. On these being cleared away, a fetus was discovered, but no placenta. Following the cord, it was found that this stretched across to the opposite side, and that there was the placenta. The fetus and secundines being removed, the cavity was flushed with warm water and drainage established through Douglas's *cul de sac*. The patient made an uneventful recovery and was now presented in fair health, and but little disfigured by the resulting cicatrix. Dr. Manley thought that this was the only case recorded of rupture of a previously unrecognized ectopic pregnancy by a traumatism.

Dr. J. Lewis Smith read a paper in the Pediatric section on peritonitis in infancy and childhood. Peritonitis, he said, was likely to occur at any age, but the most interesting and fatal form was that which occurred in the newly born. In this form there was no doubt that microbes played an important part in the etiology; the septic matter entering the system through the umbilicus, usually from the use of foul dressings, foul fingers, and so forth. Umbilical inflammation, with perhaps ulceration, and the formation of a phlegmon, might occur and septic matter be taken up by the umbilical lymphatics or blood-vessels, and carried into the system. Peritonitis occurred in infancy and childhood from a variety of causes, such as extension of inflammation from the abdominal walls, or of the viscera, septic infection, chronic degenerative disease of the kidney, and cheesy degeneration of the mesenteric glands, which sometimes gave rise to inflammation in the portion of the peritoneum covering them. It was now known that a considerable number of diseases which were formerly supposed to be due to taking cold were caused by microbes. There was too great a tendency at the present time to ignore thermal changes in the atmosphere, or exposure to cold as a cause of disease. Intussusception and appendicitis was an occasional cause of peritonitis. It also often followed trauma of the abdomen. Children less frequently than adults had ulceration of Peyer's patches in typhoid fever, but it sometimes occurred, ending in perforation or rupture and fatal peritonitis. Quite a number of cases had recently been reported showing the microbic origin of peritonitis in certain instances. Some of the cases were affected by accidental inoculation, and others were due to inhalation of sewer gas. Experimentation had proven that to produce purulent peritonitis, it was necessary to exhibit pus-producing organisms, and irritants and non-pathogenic germs did not produce peritonitis, even in ever so small degree. Tubercular peritonitis was much more frequent in infancy and childhood than in adult life. The symptoms were more or less characteristic, and only when co-existing with some other disease was there any difficulty in making a diagnosis. Tenderness on pressure, pain, temperature, and position of the patient were the symptoms usually looked for in peritonitis. There was generally gaseous distention of the intestines, sometimes so great as to carry the apex of the heart upward. The liver and spleen were also pressed upward and backward. The displacement of these organs allowed the distended colon or portions of the duodenum or jejunum to lie in front of them, thereby changing the normal dull note on percussion for that of tympanitic resonance. Constipation was usually present in the early stage. Vomiting was a common and painful symptom. The pulse was accelerated, frequent and small. The countenance was anxious, but the mind was clear, or there might be mild delirium, with incoherency of speech. Retention of

urine was common. The relative proportion of the different inflammatory products varied greatly in different cases, and in all, not only were serum and fibrin present, but pus corpuscles could be detected under the microscope. The fibrinous exudation upon the peritoneal surface occurred either in patches, or continuously over a considerable part of the visceral peritoneum. It was prone to form a covering of various thicknesses over the large and immovable organs. Adhesions frequently took place between the intestines and viscera, producing disastrous results. Peritonitis in children was always a grave disease, in most instances its progress was towards a fatal termination. Prophylaxis and removal of the cause, Dr. Smith said, was probably the best way to deal with these cases.

Dr. Vaughan has recently had a case of fracture of the clavicle in that rare locality, near the sternal end. A very good result was obtained from pressure by means of pads and strips of adhesive plaster.

A convenient way of putting on the plaster-of-Paris jacket in paralytic cases has recently been described by Dr. John Woodbury when presenting a patient who had sustained fracture in the dorsal region, operated upon for cord pressure by Dr. McBurney. He folds a strip of cheese cloth so as to make a hammock about twenty feet long, four thicknesses, swung so that it can be tightened to any required degree. On this the child is laid, belly down, slits are cut to pass the hands and legs through, also one for the face. Two assistants now lift the hands and legs, the required degree of extension is made, and the plaster-of-Paris is applied over a knit shirt and around the hammock. The ends of the hammock are cut off when the jacket hardens. In the case operated upon by Dr. McBurney, thickened laminæ and spinous processes were removed, the dura being found normal was not opened, paralysis gradually disappeared, control was gained over the bladder and rectum, and the little patient when presented was able to walk.

IODOFORM AS A SUBSTITUTE FOR LUGOL'S SOLUTION.

Ernest Besnier prescribes iodoform for scrofulous infants, in the following formula:

℞ Iodoformi . . . . . gr. iss
Mellis . . . . . f℥iv
M. Sig. Dessertspoonful at a dose.

PERISCOPE.

Counter-Extension at the Knee.

Dr. Henry Ling Taylor, of New York, read at the meeting of the American Orthopedic Association, Philadelphia, September 16, 1890, a paper describing a good method of securing counter-extension at the knee-joint. As reported in the *Boston Medical and Surgical Journal*, October 16, 1890, he said:

"The patient being put to bed, the first step in the dressing is the application of adhesive plasters to each side of the leg and thigh. To get a firm and even grasp of the limb, we use a three-tailed or five-tailed plaster made as follows: four pieces of yellow adhesive plaster, about an inch and a half wide and eight inches long for an adult, having firmly sewed to one end a piece of webbing six inches long, and two strips of rubber plaster three-quarters of an inch wide and about twenty inches long, in such a manner that the webbing prolongs the yellow plaster, while the strips of rubber plaster make with it an angle of sixty degrees, as seen in the cut. We now have four three-tailed plasters with webbing attached. Two of these are applied to the leg below the knee, one to each side, the webbing starting about four inches above the ankle and falling towards it; the narrow strips of rubber plaster are wound spirally around the leg, slanting towards the knee. The two remaining three-tailed plasters are similarly applied to the thigh, the webbing starting a few inches below the level of the crotch and falling towards the pelvis. When in place, the plaster is retained by a light bandage; it is thus seen that when the four ends of the webbing are doubled on themselves and buckled over the edge of some form of fixation splint, reaching beyond the plaster in both directions, traction is exerted upon the knee both above and below.

"It is necessary to apply the plasters to the leg and fasten the webbing to the splint in such a manner that no prying or twisting force falls upon the knee, or pressure will be increased instead of relieved. The splint must be rigid to provide fixed points for the traction, and must immobolize the knee laterally and antero-posteriorly, without pressing upon the joint. If flexion is moderate, two straight strips of wood like laths or window-shade sticks, cut the proper length and provided with buckles near each end, will

do very well. The strips are well padded with cotton or folds of fabric above and below the knee and at the ends and securely fastened in place each side of the limb by bandaging them together over the top of the thigh, behind the knee and above the ankle; after this additional bandages may secure the whole. We now have to draw the pieces of webbing over the ends of the side splints as tightly as we wish, and fasten them into the buckles provided. Our simple counter-extension splint is now complete, but it is usually desirable to attach five or six pounds to the lower end of the apparatus by the ordinary cord, pulley and stirrup arrangement, the knee being carefully propped and supported in the flexed position by hard cushions or in a sling. If much flexion is present, a tracing of the leg should be taken on paper, and wooden side-splints with a corresponding angle and perhaps hollowed at the knee, can be prepared by the carpenter. This dressing has worked well and given prompt relief in a number of cases, but it occurred to me last summer that the ordinary plaster-of-Paris splint, reaching from above the ankle to near the crotch, might be utilized for the same purpose and prove more convenient in an ambulatory case. I have used such an arrangement with satisfaction in a number of cases, of which one was a bad old case of osteitis of the knee, with nearly ninety degrees of flexion, for whom I was preparing and have since applied, a more perfect steel splint. The plasters were applied to the limb as before, bandaged in place and the knee covered with cotton; over this was placed a light plaster-of-Paris splint with strong edges, over which small pieces of card-board were bent where the webbing was reflected. Buckles attached to bits of webbing were bandaged into the plaster on the outer and inner side of the limb at each end, and to these the plaster webbing was fastened.

"If the patient is small a stiff tin or zinc posterior splint could be bent to correspond to the angle of flexion, and turned up at the sides for lateral support and to receive the buckles near the ends. Whatever the form of apparatus we use for fixation and as a fixed point for our counter-traction, we must be careful, let me repeat, that no leverage, especially no prying or twisting force, is exerted upon the joint. If the counter-traction acts in the lines of the deformity, we should in most cases speedily get relief from pain, diminution of tenderness, heat and swelling, relaxation of the flexor muscles and an improved general condition of the patient. As the mechanical conditions are favorable, the amount of traction need not be great, not nearly so great as is required at the hip, but it should be constant, definite and in the proper direction. Even in our steel splints ratchet-traction is not required, as merely drawing the straps into the buckles by the hand gives a sufficient pull. After a few days or weeks motion will be freer; as the muscles relax the splint is straightened and counter-extension in the improved position continued. The later stages towards recovery may present indications for different management, and the ultimate result will depend upon an exact apprehension of the physiological requirements of the joint at each stage and precision in meeting their demands."

Autopsies in America.

The *Boston Medical and Surgical Journal*, November 6, 1890, says editorially:

Most American physicians realize the great advantages for promoting the advancement of knowledge which the medical profession of the continent of Europe have in comparison with us, in being able to procure and report a large number of autopsies. The report of a fatal case is not complete, and the statistics of a fatal disease are comparatively worthless without the certain knowledge which only an autopsy can give.

The fault, of course, lies in our laws, and the law is, undoubtedly, the expression of the will of the laity, and cannot be altered without a change in public opinion; but is not the medical profession also partly to blame? Is not the repugnance which is felt to autopsies in the community due largely to their infrequency? In countries where *post-mortems* are considered almost as much a necessary part of death as the services of the undertaker, very little opposition is met with, even from the less intelligent part of the community. In some European States all bodies are removed to a dead-house within twenty-four hours of death, where the diagnosis of death is confirmed, and an autopsy done. In at least one city a law exists that if any person objects to an examination, a complete autopsy must be made.

The American physician is often indifferent or careless after his patient is dead. Ex-

cept in large cities, it is difficult to undertake a *post-mortem* examination, and even where it would be comparatively easy, a busy doctor will often prefer to remain in doubt rather than undertake a disagreeable extra amount of work, and perhaps at the same time run the risk of offending the bereaved family. But every *post-mortem* that is made is so much aid in moulding public opinion, and it seems more than likely that if the medical profession as a whole should systematically request an examination whenever possible, the feeling in the community would soon change. Great assistance might be given in cities by a system which would make the details easy and inexpensive.

We already have laws demanding an autopsy in cases of suspicious death. Would it be too much too ask to have a law allowing a *post-mortem* on all patients who die in public institutions? This would be a great gain, for these cases have, as a rule, good *ante-mortem* clinical histories, and the autopsy can be held under the most favorable circumstances. The principal objections to such a law at present are, (1) a rare and indefinite semi-religious feeling connected with the resurrection of the body, in the presence of which feeling no one would want to enforce such a law; (2) the common feeling, already mentioned, of repugnance to the mutilation of the body of a relative, which is now the main stumbling-block; and (3) the fear in the public mind of *ante-mortem* autopsies. But the physician realizes that the signs of death are better understood by the pathologist than by the undertaker, and the danger of a premature autopsy is much less than the danger which now exists of premature embalming, nor is the mutilation of the body materially greater. The idea which we occasionally meet among the lower classes that the officers of a hospital take a fiendish delight in dissecting dead bodies, and rather desire the death of a patient in order to get a chance, might at first keep a few cases from going to institutions, but it probably would not do so for any length of time.

It is not necessary to discuss at length the advantages to the medical profession and to the laity of frequent autopsies, or their influence on insurance and mortality statistics and on quackery. Let us hope that before long not only will the physician know that the death certificate which he signs is absolutely true, but that the laity will prefer to know of what diseases their relatives die.

Mode of Action of Rennin and Fibrin-Ferment.

Drs. A. Sheridan Lea and W. Lee Dickinson send notes on this subject to the July number of the *Journal of Physiology*. Fick has recently put forward the view that the molecules of the clotting ferment do not require to come into intimate relationship with the molecules of the substance which is undergoing the change, but that when once the change has been set up by the ferment in any one portion of the substance, this change is propagated from particle to particle of the same without the further necessary intervention of the ferment. Their observations, on the contrary, go to prove that the mode of action of rennin and fibrin-ferment is essentially similar to that of other well characterized enzymes, as far as contact between the ferment and the alterable substance is concerned. — *Glasgow Medical Journal*, October, 1890.

Balantidium Coli.

Dr. L. A. Labrovska states in the *Bolnitchnaya Gazeta Botkina*, April 14 and 23, 1890, that cases of chronic catarrhal condition of the large intestine with presence of balantidii coli are seldom mentioned, and that from the small number of such cases which have been treated it has not yet been found how to kill the parasite rapidly. It has been found, however, that the chronic catarrhal condition of the intestine and the diarrhœa are relieved by directly destroying the parasite.

Labrovska enumerates the cases reported in literature, and in all cases apparently the results of treatment was very unsatisfactory. The patient either continued to suffer from chronic diarrhœa, or died. The *post mortem* usually showed ulceration of the lower bowel. In all cases the parasite was found during life, and especially when diarrhœa was marked. The author cites his own patient, a woman 70 years old, whose case was investigated carefully, the stools were often examined for parasites, and the effects of the drugs administered was watched during a period of several months. The patient had had seven relapses of chronic diarrhœa, with reappearance of the parasites in the stools. Of all the drugs used the best agents were, salol, 15 grains internally three times a day, and a 1 : 1,000 solution of sali-

cylic acid by enema once or twice a day. Salol was given to have salicylic acid formed in the lower bowel, as this acid is a germicide. After this is used the number of parasites decrease considerably.

The relapses of diarrhœa after a period of two, three or four weeks, during which no parasites were detected, is explained by the probable fact that the parasites remained in the intestine in an undeveloped form during that time. At the time of mature development of the parasite gastric irritation is re-established. It is stated also that the undeveloped parasite resists more vigorous germicidal solutions.

Very large blood corpuscles, three times the normal, are also found in the stools.

The parasite is known to live in the intestine of pigs; but in the author's and other cases the mode of infection could not be discovered.

Treatment of Diabetes Mellitus.

In a paper read before the International Medical Congress at Berlin Dr. Pavy (*Montreal Medical Journal*, October, 1890), said that the first consideration in the treatment is to control by dietetic measures the passage of sugar through the system. The real point, however, to be aimed at is to restore the assimilative power over the carbohydrate elements of food, and until this has been accomplished it cannot be said that a cure has been effected, but only that the disease is held in subjection and prevented, as long as the condition can be maintained, from leading on to an unfavorable issue. What most conduces to this desired restoration of assimilative power is the maintenance of a normal state of the system by keeping it free from the passage of sugar through it, and in this way bringing a healthy condition of body to bear in helping to promote a removal of the faulty state. According to his experience, opium and its derivatives codeine and morphine are the medicinal agents which, more than any others, assist in the actual cure of the disease, by which he means a restoration of the assimilative power which has been impaired.

The influence of these agents may be witnessed in cases where the sugar has been brought down by diet to a certain point, but is unsusceptible of entire removal from the system by dietetic treatment alone. The complete removal may then sometimes be observed to follow the subsequent administration of the drug, showing that the medicinal agent has acted in the direction of exerting a restraining influence over the abnormal production and elimination of sugar.

When cases of a favorable nature—that is, cases occurring above the middle period of life—are treated by these combined measures, and the treatment is steadily carried on for some time, it is a matter of common observation that the system of the patient becomes able to tolerate a certain amount of carbohydrate food, without its leading to the elimination of sugar. Often, with strict observance of the required treatment, the assimilative power is found to become so far re-established that a fair amount of the carbohydrate principles, or even an ordinary diet, may be taken without leading to the elimination of sugar. When this is the case, carbohydrate principles, according to the extent found to be tolerated, may be taken without occasioning harm; but the object is to keep below the point at which the escape of sugar takes place, and when this is done, actual benefit, instead of injury, is derived therefrom.

Dr. Pavy refers to the aid afforded by the quantitative testing of the urine. It is absolutely essential, he considers, in the management of a case, to possess the knowledge thus supplied, not only for the purpose of regulating the treatment according to the progress made, but also for keeping a check upon the manner in which the directions given are carried out. When in a case it is found to happen that the assimilative power has been restored, it is permissible to consider that an actual cure has been effected; but it is always requisite to bear in mind that a weak point has existed, and that it is advisable to avoid unduly taxing a power which has previously given evidence of being at fault.

Russian Institute of Bacteriology.

It is announced that a Pasteur Institute is to be established at St. Petersburg through the generosity of Prince Peter Oldenburg. The building, on Apothecary Island, is nearly completed, and will be known as the Institute of Experimental Medicine. The conduct of the studies in regard to rabies and contagious diseases generally will be intrusted to specialists in bacteriology, chemistry, biology and veterinary science.

THE

MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

IN MEMORIAM.—SAMUEL LEWIS, M. D.

The death of Dr. Samuel Lewis, of Philadelphia, removes from the medical profession in this city one of its most interesting and honored members. The outlines of his professional career will be found in another part of this number of the REPORTER; but here the Editor would pay a short tribute to the personal character of one whose friendship was a treasure and whose approval was both reward and incentive. Only those who knew Dr. Lewis personally could fully appreciate the strength and charm of his character. He was a man of unswerving integrity—a clean, straight, honest man; a man of excellent judgment; and withal a man of such kind and gentle heart that all must love him. His influence was always good, and it was safe to submit any question of personal or professional morals or ethics to the touchstone of his action; for, in matters affecting individuals or the whole profession of the country, his course was sure to be that which eventually seemed the best and wisest.

The loss of such a man is a very great loss; for he was of the kind which keep the profession from yielding too much to the excitement and strain which our time puts on all classes of men. To him older men could look with confidence that he would maintain the best traditions of the profession, and young men could look as an example of what is really best in personal and professional character. May those who are like him be preserved and multiplied!

USE OF CHLORAL IN SURGERY.

Chloral was invented in 1832 by Liebig, but it was nearly forty years later, in 1871, before it was introduced to medicine by Liebreich. Since that time it has been used extensively and its physiological action has been determined very satisfactorily. Its most characteristic effects are upon the heart and circulation, and upon the nervous system. It depresses the heart and is capable of paralyzing the vaso-motor centre; it acts upon the cerebrum directly, producing sleep, and as a depressant upon the spinal cord and medulla, finally paralyzing the respiratory centre. Locally it acts as an irritant. Its physiological actions indicate sufficiently its therapeutic usefulness for medicinal purposes. The local use of chloral, however, in certain surgical affections has not excited very wide attention. Even Germain Sée, who does full justice to its physiological actions and medicinal uses, in an article published in *La Médecine Moderne*, July 3, 1890, says almost nothing of its local uses. Marc Sée supplies what is lacking in this respect, in the issue of the same journal for July 17. The latter says he began using chloral locally in 1865, his first case being one of ulcer of the foot

which was covered with psuedo-membranous and gangrenous exudate. The result was highly satisfactory, so that he came to use it largely, only abandoning it when attracted to carbolic acid by the claims made for it by Lister. Chloral is applied to the wounds by Marc Sée in weak solution. He regards it as a powerful antiseptic, which cleanses wounds rapidly and is without the inconveniences of alcohol. It is also hemostatic, immediately arresting the bloody oozing which often embarrasses a surgeon. In strong solution—equal parts chloral and water—it acts as a caustic; Sée has found a two or three per cent. solution the appropriate one for ordinary purposes.

In addition to wounds and ulcers, Sée has employed chloral with benefit as an injection into the urethra, vagina and bladder, in cases of catarrhal inflammation, and into fistulous tracks, and in deep suppurating cavities, when evacuation of the pus was poor in spite of drains. The coagulating power of chloral has been utilized in injections for the cure of hydrocele, as a substitute for iodine. Sée declares that he has employed chloral for this purpose in ten per cent. solution, for the past fifteen years. He has treated perhaps two hundred cases, and asserts that all have been cured without the least accident, and that he has no knowledge of a single relapse. His method consists in injecting thirty grams of the solution, which is allowed to remain in for fifteen minutes and then withdrawn partly or wholly. In two or three days a more or less considerable effusion into the tunica vaginalis takes place, but this is absorbed gradually and completely. Such chloral injections are not suitable for all cases, because no injections will cure a case in which the walls of the sac have become hard and rigid; incision alone suffices here.

In the treatment of varicose veins, Sée has followed the method of Schwalbe, but has substituted chloral for alcohol. The result has been the same, the blood has been coagulated slowly in the vessels, which subsequently retract slowly. He has also made trial of it by injection into cysts of various kinds, but the results are as yet incomplete.

The writer cannot verify most of the assertions of Sée, but he has found chloral valuable in a class of painful irritable ulcers which Sée does not specifically mention, namely fissures of the anus. The employment of five grains of chloral in rectal suppository, repeated two or three times a day, and after a movement of the bowels, has cured such an ulcer without resort to the knife. Chloral, employed in the same way, has also proved very soothing and healing in slight lacerations of the vaginal mucous membrane. If Marc Sée's experiences with it is verified by others, chloral will have a much more extended use, becoming a substitute for some of the established uses of the tincture of iodine. We hope some one nearer home will supply the needed information for confirming or refuting his observations.

TUBERCULOSIS AND PSEUDO-TUBERCULOSIS.

Tuberculosis has been a scourge of the human race for centuries. As physical diagnosis was practically unknown until the time of Laënnec, and even pathological anatomy had not begun to be studied until towards the close of the sixteenth century, it is easy to see how many wasting diseases, being judged by their symptoms only, were confounded with tuberculosis. But even after pathological anatomy became a general study, much confusion existed as to what constituted tubercle and what did not. At one time, and that as late as the first half of the present century, some held that granulations were the only true tubercles, while others maintained that caseous masses were the true type, and that miliary tuberculosis was a special disease; and still others that they were all different manifestations of the same disease.

G. H. Roger, in the *Gazette Hebdoma-*

daire, November 8, 1890, gives an excellent review of the past and present views of tuberculosis and its pathology, about which we have admittedly learned much, but have certainly much more to learn. He points out that the anatomical arrangement believed to be characteristic of tubercle—*i. e.*, three concentric zones: in the centre a giant cell, around it epitheloid cells, and surrounding all and forming the periphery, a ring of embryonal elements—is met with in other diseases, especially in syphilitic products, and has been seen to follow the introduction into the organism of animal parasites and inert foreign bodies. This arrangement, therefore, indicates nothing in itself; it is only the reaction of the organism in the presence of a pathogenic agent. Histology availed nothing to distinguish true tubercle from false, because it was not a question of structure; but when Villemin, in 1866, showed that tubercle was inoculable, and that by inoculation tuberculosis could be transmitted, the discovery afforded the desired means of differential tuberculosis. It was found that true tubercle when inoculated produced a similar lesion in the second animal, and that the disease by successive inoculations could be transmitted to a third animal, and from the third to a fourth, and so on for a series; whereas false tubercle could at most produce in an animal only a nodule from irritation, from which nothing further could be obtained. The macroscopic and even microscopic appearances of the two tubercles were the same, but one had infective properties and the other had not.

Another form of pseudo-tubercle is produced by various worms, which have been described by Leuckart, Koch and Laulaizé These produce by irritation a tubercle, but it is not infective. Such a tubercle, produced by the eggs of a distoma, has been found in a man who died of beri-beri.

When Koch, in 1882, described the tubercle bacillus, the specific character of tuberculosis became, in Roger's opinion, incontestable. At once the unity of the various tubercular manifestations—certain pleurisies, cold abscesses, white swellings and Potts' disease—seemed assured. Very soon, however, Malassez and Vignal described a tuberculosis due to another parasite than that of Koch. By inoculating a cutaneous tubercle, these experimenters demonstrated a disease transmissible in series, and seemingly produced by a mass of zoöglœa. Their results have been confirmed by other observers. Subsequently, Roger published, in company with Charrin, a note of a case of tuberculosis which arose spontaneously in a guinea-pig. The parasite producing it was cultivated, and pure cultures reproduced the disease in the rabbit, guinea-pig, and at times in the white mouse. The bacillus was different from that of Koch's; it produced granulations without degeneration, and the nodules stained differently from those of the zoöglœic tuberculosis. Other forms of tuberculosis have been described by Courmont, Pflüg, Nocard and Eppinger.

The tuberculoses produced by pathogenic agents other than the bacillus of Koch, are by Roger united under the name pseudo-tuberculosis. From this it would appear that tubercle can no longer be regarded as the specific product of the tubercle bacillus of Koch, but it seems to be a reaction of the organism which can be excited by very diverse agents. It should not be forgotten, however, that, with the exception of the disease produced by Malassez and Vignal by the inoculation of a human cutaneous tubercle, the pseudo-tuberculoses of microbic origin are observed only in animals. It is for the pathology of the future to determine the relation that exists between tuberculosis in animals and that in man; in the meantime we have at least learned that mere anatomical structure indicates nothing as regards the cause of the tubercle, and that there are different kinds even of infective tubercle, due either to different causes altogether or to different species of the same cause.

KOCH'S "LYMPH."

A letter received just as we go to press, from the regular correspondent of the MEDICAL AND SURGICAL REPORTER in Berlin, in reply to instructions cabled to him, says: "At present no lymph at all is to be had for any one, not even the large clinics in the Empire. As soon as obtainable you will get some."

We believe that this is about as near as any American has come to getting any of this remedy, unless Dr. Jacobi has really had some. When we get nearer and can inform the readers of the REPORTER more fully about it and the effect of its administration in this country, we shall hasten to do so.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

PRACTICAL DIAGNOSIS AND PRACTICAL URINALYSIS. An Epitome of the Physical Signs of the Heart, Lung, Liver, Kidney and Spleen in Health and Disease. Edited by JOHN E. CLARK, M. D., Professor of General Chemistry and Physics in the Detroit College of Medicine. Fully illustrated. 12mo, pp. 193. Detroit: The Illustrated Medical Journal Co., 1890. Price, $1.00.

Dr. Clark states in his introduction that there is a demand for a work on physicial diagnosis which gives the main points briefly and plainly. He disclaims originality for the present book, except so far as the arrangement is concerned, and for some annotations and additions. The chapters on Urinalysis, however, are his own, being the laboratory processes used by him in instructing his classes in the chemical laboratory at the Detroit College of Medicine.

The book is full of useful information in a condensed form. It could, however, be improved in certain respects. For instance, in mentioning the physical signs of the first stage of phthisis, Dr. Clark says, under auscultation: "*At commencement*, 'jerky,' 'wavy' inspiration; *at end*, inspiration harsh, and expiration prolonged, becoming 'tubular.'" This is too brief to be clear, and 'tubular' is open to misapprehension.

The book as a whole is a good one, its defects being such as are almost inevitable results of great condensation.

—Adulterated mace has appeared in Germany. The adulterant, according to Hanausek, is another species of myristica, probably Myristica malabarica, or Bombay mace.

CORRESPONDENCE.

Consumption Among Firemen.

TO THE EDITOR.

Sir: In your issue of November 29, Dr. J. H. Musser criticises my paper on *Consumption Among Firemen*, which appeared in the REPORTER, September 27, 1890. He states that I was either imposed on by the sources of my information, or misapprehend the facts on which my paper is based. I do not claim infallibility for myself; but would assure him that my only motive in undertaking that work was not, as he intimates, my anxiety to pull down anything which has the least claim to be called scientific medicine, but to learn the truth of a problem in the evolution of a disease which had not before been investigated.

He goes over the same ground which I traversed last August, so far as the Philadelphia Fire Department is concerned, and makes the discovery that out of the 33 members who died, 13 were suffering with the disease before they entered the Department. I agree with him that, if this is true, a great part if not all of the force of my conclusions is destroyed. But is this true, or is it mere fiction? Common prudence ought to dictate that before an assertion of such serious import is made, it should be substantiated by at least the semblance of invincible testimony, but all that he knows, he states, is the declaration of the clerk of the Philadelphia Fire Department. On interviewing this gentleman since, in regard to this question, he stated to me that his belief that these men were consumptive when they entered the Department, rested on the fact that they died in a comparatively short time after admission; and that he had no medical evidence whatever to support this opinion. This is a very natural view for a non-medical mind to offer in explanation of the astonishing death-rate which occurs among these men from consumption; but a careful medical man, especially when criticising another, ought to be on his guard against citing lay reports as if they were medical facts. Is this the way in which he and his *confrères* "add new facts and build up the science of medicine"? Is this befitting to one who says that he is "impatient with the lax processes of reasoning employed" by others? A visit to the Department of Public Safety, Broad and Market streets, would have shown Dr. Musser that, although the service had

an examining surgeon only during the last five or six years, the Department had been earnestly striving to admit none but able-bodied men for the last seventeen years, and even longer; that the applicant was required to make oath that he is free from disease; and that only after thorough scrutiny by the head of the Department was he admitted. Dr. Musser's assertion that these invalids were admitted on account of strong political influence is unsupported, and I trust he will be kind enough to furnish the proof on which it is founded.

That the high death-rate from consumption among the firemen of this city does not rest on any such fictitious basis as that which is assigned by Dr. Musser, is evident from the fact that a similar death-rate prevails among the firemen of other cities, the statistics of which I collected. *Fire and Water*, August 16, 1890, (a journal published in New York, and devoted to the interests of firemen) states "that the *average fire department* (Italics mine) draws its material principally from the ranks of active young mechanics, who bring to their new calling strength and energy. In New York the requirements are such as to guard about as effectually as is possible against the admission of poor material." Yet in New York City, and in spite of rigid medical examinations since 1867, more than 30 per cent. of the deaths among firemen were caused by consumption, and 10 per cent. more by other diseases of the lungs, as is shown in my paper.

Dr. Musser seems to be skeptical as to the assumption that firemen lead an out-door life. If these men could extinguish the fires of this city, undergo the most terrible hardships and risks to life and limb while pursuing their duty, without leaving their engine houses, their work might properly be called an in-door occupation: otherwise, I think not.

Now is the exaggerated death-rate of firemen from consumption due to the ravages of the tubercle bacilli, as Dr. Musser assumes, or to the influence of their peculiar employment? If the former, then it must be shown that they are more than ordinarily exposed to these organisms. Even if this were true, it would still have to be shown why physicians, nurses and attendants in consumption hospitals, who live, breathe, and have their being among these germs, are comparatively free from this disease, and why their death-rate from consumption, when compared with that of firemen, sinks into veritable insignificance. If the bacillus theory works in one case, it must also work in the other. To say that a fireman, suffering and dying from consumption, is a source of infection to his companions, is simply an unproven statement. There is probably not an adult in this city who has not at some time lived with a consumptive member of his family, or who has not occupied a house in which a consumptive lived or died, and yet the relative death-rate from consumption among firemen exceeds that of the general adult population by more than 25 per cent. Why is this, if there is not something in the fireman's vocation, independent of the suppositious danger of this germ, which makes him so liable to this disease?

I think that I have not overstated the death-rate from consumption among our city firemen; for since my paper has been published, I learned that, owing to a periodical examination and discharge of invalid members, not all the deaths occurring among those who served in the department are officially reported. But, in order to arrive at the exact truth in this matter, I cordially invite Dr. Musser to point out the other misapprehensions, spurious arguments and the quotation of worthless authorities, which he says are contained in my paper.

In conclusion I desire to say, however, that if this criticism is a specimen of "the close reasoning and absolute step-by-step demonstration" which is pursued by the adherents of the contagion theory, it is not at all surprising why their logic has betrayed them into an endorsement of some of the wildest medical vagaries of the present age.

Yours truly,

THOMAS J. MAYS, M. D.

Philadelphia.

Atmospheric Tractor.

TO THE EDITOR.

Sir: I have discovered within the last few days, that the "Atmospheric Tractor" described in the REPORTER, November 29, 1890, can be made to adhere firmly against the head of the child by the employment of only a few ounces of force. The method described last week consisted in displacing the air from the cup by a pressure proportionate to the area of the top of the handle or vacuum producer. If the diameter of the handle were one inch, the pressure required

would be about ten pounds. This would not, however, be exerted against the head, but entirely against the air within the cup.

By the new method of application, the sides of the cup are to be inverted, and the fundus placed firmly against the presenting part. If the sides of the cup be then gently reinverted, they will drive out the underlying air and become firmly affixed to the surface. Traction may then be performed in the usual manner. If the vacuum is not sufficiently perfect, as can be readily ascertained by touch, sufficient pressure may be afterwards exercised on the handle or vacuum producer to flatten the cup.

One of the chief advantages of the tractor is the facility with which it can be applied and removed. It can be applied in thirty seconds or less, and it can be removed in five seconds. To detach it, all that is necessary is to push up its edge. The air immediately rushes in beneath and separates it from the entire surface.

Another advantage is that it does not compress the head nor elongate any of its diameters, nor does its application or employment inflict pain, nor require to be preceded or accompanied by the administration of anæsthetics. It can be used long before the forceps would be available, and in all cases where their use would not be permissible.

Like all other mechanical devices, it must be used with "brains," in order to derive the greatest amount of benefit from it.

Unlike other obstetrical instruments, serious injury is not likely to result from its use by even the ignorant or reckless. Injurious pressure or force cannot be exerted with it. It weighs less than two ounces. Its sides are as soft and yielding as the surfaces with which it comes in contact. It cannot be affixed to a surface that is not continuous, resisting, and at least four and one-half square inches in area. It is, therefore, a mechanical impossibility for it to be applied over the eyes, mouth, nose or genital organs, even if those parts were so congested by pressure and detention as to render their recognition difficult.

Yours truly,

PETER MCCAHEY, M. D.

219 North Twenty-second St.

A NEW OPENING.—Carthage, the old city of Dido and Hannibal, is to be turned into a winter resort for invalids and pleasure-seekers.

NOTES AND COMMENTS.

Clinical Experiments with Diuretin.

Koritschoner has recently made numerous clinical trials at the Medical Clinic of Professor Schrôtter, of Vienna, with the new diuretic, *diuretin*, which is a mixture of sodium salicylate and theobromine. These experiments pertained to thirty-eight cases of general dropsy. Ten of these were cases of cardiac dropsy from chronic valvular disease; twelve were cases of dropsy from Bright's disease in some stage; in six the general anasarca was due to dilatation of the heart following emphysema or arteriosclerosis; in four the cause of the dropsy was degeneration of the myocardium; in three it was hepatic cirrhosis; in two it was tuberculosis of the lung and serous membranes, and in one cancer of the liver.

The formula which Koritschoner uses is as follows:

℞ Salicylate of soda and theobromine, 4 to 8 grams

Warm water . . . . . 150 "

M. Dose, a tablespoonful every hour or every two hours.

Diuretin should be given in rather large doses; little benefit can be expected from a less quantity than four grams (sixty grains) a day; ordinarily to get the full advantage of the drug, medium doses, amounting to five or six, and maximum doses amounting to eight or ten grams, in the twenty-four hours, should be administered.

Diuretin is generally well supported, even when its use is prolonged for months. It rarely causes nausea, even in chronic Bright's disease when the appetite is gone, and but little food is tolerated. It does not cause vertigo; in rare instances patients complain of palpitation and temporary cardiac distress. Sometimes diuretin provokes diarrhœa.

As a result of these trials by the Vienna physician, the salicylate of soda and theobromine was found to be a very powerful diuretic, and in only five cases did it prove to be without action; these were cases of chronic Bright's disease, arterio-sclerosis with fatty myocardium, tuberculosis of the lungs and serous membranes—all had arrived at the last degree of cachexia, and succumbed a few days after their admission to the hospital. In ten other cases the action of the salt was much superior to that of

digitalis, acetate of potash and all other diuretics that had been administered, though but moderate benefit followed the administration of the remedy. In the majority of the patients (twenty-three out of thirty-eight), the effect obtained was excellent, the dropsical effusions rapidly disappeared, and general amelioration followed. There is even danger that under the influence of the abundant diuresis caused by the drug, the ascites and œdema may disappear so speedily as to cause dangerous collapse. On this account, Koritschoner urges that in cases of abundant effusions, the remedy should be given with considerable caution; he would, in fact, advise always to begin the treatment by a dosage of four grams a day, and if this quantity makes no sensible increase in the urine, it may be augmented by one gram a day till a sufficient result is obtained.

The diuretic action of this medicine is said to be more marked in cardiac dropsies than in renal or hepatic, yet it may render precious service in chronic Bright's disease. In fact, in this disease where all the ordinary diuretics are apt to fail, the quantity of urine excreted often becomes augmented five or six times under the influence of the salicylate of soda and theobromine. In some cases of Bright's disease, the remedy seems to exert its principal action on the intestines, producing an abundant serous diarrhœa, which in a very short time causes the œdema to disappear, without too great enfeeblement of the patient.

According to the researches of Schrœder and Gram, the diuretic effect of the salicylate of soda and theobromine is due to the excitant action of the drug on the renal epithelium. As the epithelium is the principal seat of lesion in chronic parenchymatous nephritis, it might be feared that diuretin would be injurious in Bright's disease. The observations of Koritschoner show that this fear is not well founded, and that diuretin excites the renal functions without irritating the kidneys. Thus, in two cases of acute scarlatinous nephritis when Koritschoner gave diuretin in large doses, the patient recovered with astonishing rapidity, and without any complications. Under the influence of the medicament, the blood corpuscles and hyaline casts were seen from day to day to disappear from the urine. This same favorable action of diuretin on the nephritic processes has also been noted in chronic Bright's disease.

The new drug has not as yet—as far as we have been able to ascertain—been much introduced into this country, and as theobromine is very expensive, and as the cost of a drug is an important item in the economies of many physicians and their patients, it is doubtful whether many serious trials will be made with diuretin for some time to come.—*Boston Medical and Surgical Journal*, October 30, 1890.

Koch's Remedy for Consumption.

The *New York Medical Journal* says, in an editorial, November 22, 1890:

Koch's theory of the curative action of the remedy is, not that it kills the bacilli, but that it sets up in the diseased living tissue a process that ends in its necrosis; and he implies that the bacilli are cast off with the dead tissue, and that incompleteness of this part of the process may lead to re-infection, as also may failure of the dead tissue to become wholly separated from the organism.

To support all this, he gives absolutely no statistical evidence and not a single clinical history. We have only his statements, which in some respects are rather vague. We may add that so astounding are these statements —so utterly at variance with any known biological laws—that nothing but Koch's great name and the prevalent confidence in his accuracy, produced by his past successes, would lead one to consider his article at all seriously. He states positively that patients in the first stage of phthisis were freed from every symptom of disease, and might be pronounced cured; that patients with cavities not yet too highly developed improved considerably, and were almost cured; but that in very advanced cases there was no improvement. He says that by this he is led to suppose that phthisis, in the beginning, can be cured with certainty by his remedy, but he admits that, thus far, no conclusive experience can be brought forward to prove that the cure is lasting.

In regard to his theory of the way in which the remedy acts, namely, that it destroys tubercular tissue without affecting any other structure, whether healthy or diseased, it must be said that he professes to have discovered a substance that has this extraordinary peculiarity—it is destructive to the cells concerned in the inflammation called tubercular. Possibly it may kill them directly because it is poisonous to cells engaged in the formation of tubercle, or it

may kill them indirectly by producing inflammatory changes about them, or it may destroy them in some other manner. Whatever may be the way in which it acts, the statement is positive that it is an enemy of tubercular processes, not of tubercle bacilli. Indeed the bacilli in the dead tissue may again infect the organism, and probably surgical interference will be needed to remove them. No substance is known that has an effect at all comparable to what is alleged for this remedy. Vaccination, of course, is by no means analogous in its action, since a living organism is introduced which does not destroy the small-pox poison, but only renders the body proof against it, and, moreover, does not, so far as we know, seek out particular cells or tissues for destruction.

Acute Dementia Treated by Heat and Electricity.

At a recent meeting of the Glasgow Pathological and Clinical Society Dr. Alexander Robertson showed a patient who had recovered from this form of mental disease. She was 20 years old, and had been admitted to the Infirmary on January 10, 1890. She was of a retiring disposition when well, and very much given to reading when free from work. Menstruation had been regular up to the time of her illness. This was of about two months' standing, and no definite cause was known. There was no tendency to insanity in the family. There was some excitement with hallucinations at the beginning of the disorder, but after a few days she had passed into a state of much mental degradation. She was of filthy habits, and required to be fed by a nurse. She was quite passive in every respect. There was marked emaciation; her heart's action was very weak, with a very feeble pulse, and there was coldness and blueness of the extremities. Temperature was generally 1° F., subnormal. Her tongue was coated, and there were sores about the mouth.

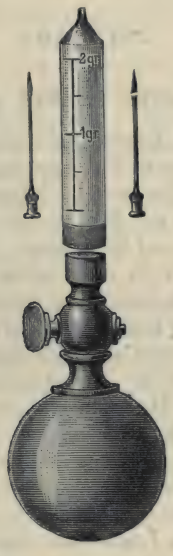
The account of the case in the *Glasgow Medical Journal*, October, 1890, states that the treatment was, in the first instance, directed to stimulation and support of the general system. Fluid food and brandy were administered at short intervals night and day. Care was taken to keep the bowels free, both with stimulating enemata and laxatives by the mouth. She improved a little under this treatment, but this improvement was so slight that the propriety of sending her to a lunatic asylum was carefully considered about three weeks after her admission. It was, however, determined to try the effect of direct stimulating applications to the brain. So, on February 1, heat was ordered to be applied to the head by the water-cap for an hour daily, at 110° Fahr. This was continued for about a fortnight, and then the temperature of the water was gradually reduced during the second half of the hour until only ice-water was circulated; and this was continued for twenty minutes. On February 20 there was distinct improvement; the patient took her food herself and showed more mental activity in other respects. From an early stage of the treatment, friction to the surface was employed, but now systematic massage for three-quarters of an hour morning and evening was commenced, the heat and cold to the head being discontinued. After three weeks of the treatment by massage she had further improved in every way; but even then she had not become quite correct in her habits. At this time she gave slow and correct answers to two or three simple questions—such as telling her name and residence. The massage was now stopped and the continuous current to the head was begun and continued during the next month until April 21. The application was made every second day, and the strength of the current was four milliampères, but only two for the first two days. The positive pole was applied to the lower part of the spine, and the negative was slowly moved over the head. In about a fortnight the patient had become perfectly correct in her habits, was talking intelligently, and assisting in the maid-work. Her mind, however, seemed a little slow, though this appearance might be due to her natural diffidence. She had gained in weight.

Dr. Robertson said that there was no distinct improvement under general stimulation of the system, and this did not clearly begin till after the local applications to the head. The case, he said—so far as treatment and its results were concerned—corresponded with one of catalepsy which had been shown to the Medico-Chirurgical Society some years ago. Heat and cold, followed by electricity, had been used in that case. Dr. Robertson also said there was a special interest in the treatment of a patient with mental disease in a general hospital at present, owing to the late discussion in the

London County Council on the projected hospital for the treatment of acute insanity in London.

Koch's Syringe.

The readers of the REPORTER, who have been reading about the method of treating phthisis and lupus proposed by Koch, have remarked that he speaks of employing a hypodermic syringe of peculiar construction. This syringe—of which a cut has been sent to the REPORTER by the maker, E. Kraus, of Berlin—as will be seen by the accompanying illustration, consists of a



graduated glass cylinder, which holds about half a drachm, with a conical glass end, to which the needle is applied; and a rubber bulb with a silver tube to connect it with the glass cylinder.

This instrument is one which will no doubt be fully appreciated by the readers of the REPORTER who have read the articles of Dr. J. J. Thomas, of Youngstown, Ohio, in this journal, September 28, 1889, and October 25, 1890, because it is constructed on precisely the same principle as is the syringe Dr. Thomas uses, and as was proposed in 1876 by Dr. Edgar Holden, of Newark, N. J.

The syringe of Prof. Koch is an ingenious and very complete instrument, and seems to be admirably adapted to any sort of hypodermic injection.

Inebriety and Life Insurance.

The American Association for the Study and Cure of Inebriety will hold the first of a series of monthly meetings at the Hall of the New York Academy of Medicine, on Forty-third street, Dec. 10, at 8 P. M.

The subject of the evening will be presented by papers from Dr. T. D. Crothers, of Hartford, Conn., "On Alcoholic Inebriety and Life Insurance," and by Dr. J. B. Mattison, of Brooklyn, N. Y., "On Opium Addiction and Its Relation to Life Insurance." Other leading physicians will participate in the discussion.

Remedies for Skin Diseases.

The *British Journal of Dermatology*, November, 1890, contains the following valuable formulæ:

Aristol Solution in Ether.

℞ Aristol . . . . . 5 parts
Ether . . . . . 50 "

Aristol Collodion.

℞ Aristol . . . . . 2 parts
Collodion . . . . . 18 "

Aristol Pomade.

℞ Aristol . . . . . 5 parts
Vaseline . . . . . 15 "
Laholine . . . . . 30 "

Strong Tincture of Iodine.—One of the best solvents of iodine is methylated spirits of wine. With this any strength of solution can be made in a very short time, which is a convenience when we wish to apply a powerful remedy to a very limited area.

Unna's Gelatine Dressing.

℞ Oxide of zinc and pure gelatine . each 10 parts
Glycerine and distilled water . . each 40 "

Atonic Ulcers.—Since the publication of an article on this substance, by Swetnam, in the *Canadian Practitioner*, in 1887, Necker, of the University of Toronto, has made frequent use of this drug in the treatment of ulcers and wounds, only employing it when the wounds seemed "atonic." After an experience extending over a few years he concludes that it is superior to iodoform and the majority of other dressings. Having powdered the surface over with the drug, he applies cotton-wool or antiseptic gauze, and, in addition, puts on a bandage to exert some degree of pressure. At the end of the third day the dressing is removed, the wound

cleaned with an aqueous solution of carbolic acid, and the dressing re-applied.

For Sycosis.

℞ Iodoform . . . . . 4 parts
Lanoline . . . . . 30 "

Leache recommends this ointment to be applied every night, and to be washed off in the morning with hot water.

For Warts.

℞ Corrosive sublimate . . . . . 1 part
Flexible collodion . . . . . 30 "

To be applied once daily upon the wart and around its base.

For Perspiring Hands.

℞ Eau de cologne . . . . . 120 parts
Tinct. of belladonna . . . . . 15 "

To be used as a lotion.

For Pediculi Pubis.—Brocq uses a lotion composed of

℞ Vinegar . . . . . 500 parts
Sublimate . . . . . 1 "

This application is said not only to kill the pediculi, but also to remove the nits.

For Eczema.

℞ Oleate of cocaine . . . . . 1–2 parts
Lanolin . . . . . 40 "
Olive oil . . . . . 10 "

This is recommended by Lustgarten for the treatment of eczema of the anus and genitals. Two applications daily, followed by the use of some absorbent dusting powder, hot hip-baths and soap. For the relief of pruritus ani he uses suppositories containing the oleate of cocaine.

For Intertrigo.—Wertheimer uses the following lotion for intertrigo, and speaks of the good effect often rapidly produced. He applies a compress wetted with the lotion and placed in contact with the part affected for an hour at a time, three or four times a day.

℞ Corrosive sublimate . . . . . 1 part
Distilled water . . . . . 2,000 "

If the intertrigo becomes very severe he prefers the local application of phenol, chloride of lime, etc., and also finds lotions containing alcohol or iodine very serviceable.

Saccharin Gun-Powder.

The *Druggists' Circular*, October, 1890, states that experiments were then being made with a view to the substitution of saccharin for sulphur and charcoal in the manufacture of gun-powder. The resulting compound is of a yellowish color, and when burned makes a good deal of smoke, but for mining purposes is equal to the common article.

Cocaine for Painful Teething.

The following prescription is taken from *Merck's Bulletin*, October, 1890.

℞ Cocaine hydrochlorate . . . . 1½ grs.
Syrup . . . . . 2 fl. drachms
Tincture of Coveus . . . . . 20 drops

M. Sig. To be rubbed on the gums several times a day.

OBITUARY.

SAMUEL LEWIS, M. D.

Dr. Samuel Lewis died, November 26, at Bryn Mawr, near Philadelphia. Dr. Lewis was born on the island of Barbadoes, West Indies, in 1813. He studied medicine in the University of Edinburgh, from which he was graduated in 1840 with the degree of M. D. In the same year he was elected a member of the Royal Medical and the Royal Physical Societies of Edinburgh, as well as a member of the Philadelphia College of Physicians. He was also elected to the membership of the American Medical Association in 1851, to the Philadelphia Academy of Sciences in 1855, and to the Pathological Society in 1860.

In 1884 Dr. Lewis was chosen President of the College of Physicians, but was obliged to resign a few months later on account of ill health. Dr. Lewis was an important contributor to medical and surgical literature, and it was due entirely to his generosity and enterprise that the Lewis Library was formed and united with the library of the College of Physicians of Philadelphia. The library, which contains an excellent portrait of its benefactor, numbers more than 10,000 volumes, some of which are extremely rare and of the very greatest value. During the last years of his life the perfecting of this library was the object of Dr. Lewis's unremitting care; and to his devotion, extraordinary judgment and faultless taste is due to a great degree the fact that the Library of the College of Physicians of Philadelphia has no equal in this country except the Library of the Government at Washington.

MEDICAL AND SURGICAL REPORTER

No. 1763. PHILADELPHIA, DECEMBER 13, 1890. Vol. LXIII.—No. 24.

CLINICAL LECTURES.

POTT'S DISEASE OF THE SPINE.[1]

BY PROFESSOR V. P. GIBNEY, M. D.

The approach to the subject must necessarily be by way of definition, etiology, pathology, and early diagnosis. The term Pott's Disease of the Spine is sufficiently explicit, is sufficiently well known the world over, to make this name not only popular, but equal to all needs. Percival Pott, you will remember, a little over a hundred years ago, in describing the affection, described it so accurately that his name has remained to the present day. He wrote about that "kind of palsy" which accompanies this disease, and gave us a very fine clinical picture of the paralysis of compression myelitis. Certain authorities within the past few years have endeavored to substitute the name spondylitis, and have written and talked about spondylitis simply because *spondylos* means a vertebra and *itis* means inflammation. Long before the introduction of this name, neuologists were familiar with the term spondylitis, and knew the affection as one of rheumatoid periarthritis, affecting chiefly the spinous processes and lateral masses, the inflammation encroaching on the foramina of exit and producing various painful neuralgias. The baths of Europe have for years treated such cases, and Julius Brown in time past has described fully the affection as known to the neurologist. Pott's Disease is, therefore, not the spondylitis of medicine, but is what the Germans have preferred to call it, a spondyl-arthrocace, meaning a caseous degeneration of the body of the vertebræ, involving scarcely at all the lateral masses or spinous processes. It is true, as the disease progresses, these processes are secondarily involved, as the bodies give way and fall together. The term "angular curvature" is objectionable, because curves are not angular and angles are not curves. The kyphosis which results from this disease, is in contradistinction to lordosis—which belongs to lateral curvature of the spine—a deformity not dependent on any inflammatory lesion. The term "lordosis" is used also to indicate an incurvation of the spinal column, and the deformity is generally compensatory to a kyphosis. These terms—"kyphosis," "scoliosis" and "lordosis"—date back to the age of Hippocrates. The terms "tuberculosis of the spine," or "tubercular ostitis," would be more in accord with the pathology of the present day, but the introduction of any new names is confusing somewhat to the medical mind, and personally, I have no objection to adhering to the old name: "Pott's Disease of the Spine." If the term "tubercular" could be introduced, I should feel that a better appreciation of the lesion could be had, and the surgeon would then be forewarned; and to be forewarned is to be forearmed.

Pathology.—The lesion which produces the deformity now under discussion is an inflammatory focus in the body of a vertebra, at or near the centre or centres of development. It begins as a small reddish spot, gradually extending by continuity, very like the initial lesion of vaccination, encroaching upon the healthy tissue, changing this both in color and consistence, the centre gradually breaking down and becoming yellowish, finally leaving a cavity. The process is very slow. Exacerbations are caused by trauma, or strain, or exposure to cold. The exacerbation consists in a rapid extension of the inflammatory process to the periphery, involving the cartilages and joint structures generally, giving rise to a true arthritis. Painful symptoms then appear. We have the "girdle pain," the stooping pos-

[1] Delivered at the New York Polyclinic, November 22, 1890.

ture, sensitiveness to the slightest jar or concussion, the peculiar gait, short step, what is known as a spinal limp, care maintained both in sitting and standing and walking, an expression of pain. On the subsidence of the exacerbation, these symptoms grow less pronounced, the inflammatory area approximates its original size, but there is left a vulnerable area of tissue, and subsequent exacerbations finally succeed in breaking this down. Muscular spasm plays an important part in the disease and assists in the production of deformity, and finally an abscess forms, to remain incapsuled or to find its way to the surface. It not infrequently happens that incapsulation takes place, the tissues thereabout are thickened by the inflammatory process, and a patient may go through life with one of these caseous sacs left by absorption of the fluid contents.

Early Diagnosis. — The recognition of Pott's disease before the stage of deformity is the most important element in the management of the case. The clinical picture in substance is this: a moderate amount of irritability, this irritability showing itself by crying when the child is handled or lifted by the side; moaning during the sleep—not the scream that one gets in disease of the hip; a stiffness on rising in the morning; exceeding care in the gait; short steps; a disposition to lie across the mother's lap or on the floor, prone across a chair; pains in the epigastrium, especially if the disease be in the dorsal region; awkwardness in the position of the head, when the disease is in the upper dorsal or cervical; pains in the lower limbs, if the disease be in the lumbar region; a peculiar mode of rising from a chair or the floor, namely, climbing up on the knees, as it is called, the child holding the spine stiffly and raising itself by putting a hand on the knee and then climbing up the thigh until an erect posture is assumed. All these symptoms go to make up the clinical picture of a case of Pott's disease in the early stage.

The examination of a case at this stage will reveal a slight deviation of the spinal column to one side or the other; a rigidity of the latissimus dorsi or erector spinæ muscles; a shrugging of the shoulders; no angular projection; relief afforded by traction in the horizontal position, for instance. If you lay the child across your knees and gradually extend the column; then the child will take a long breath and express a sense of relief. While making this test, bring the limbs together again, and an expression of pain will be noted; if the suspected portion of the column be in the lower dorsal or lumbar region, a little reflex spasm of the psoas and iliacus muscles can be found by hyper-extending the thigh, the child lying prone. If the disease be in the upper dorsal and cervical region, this reflex spasm can be found in the muscles that go up to the head, passive movements being necessary to bring it out. Let the child then stand on the floor and raise itself on toes and balls of the feet, coming down quite heavily on the heels. This concussion is a very good test. Again, one can place the hand on the top of the child's head and press down, and concuss in this way. While the child is lying prone, the movements of the spinal column can be tested by placing the hand over the back, and with the feet and legs in the other hand, hyper-extending and moving them from side to side. Spinal tenderness to pressure over the processes is seldom present. It is the rule not to have any tenderness. This is true of children. In adults, however, tenderness in the rule.

Take, for instance, this child, who has been lying quietly under all this preliminary talk, and who gives no evidence of tenderness whatever as I run my finger along the spinal column, although she has a slight *bosse* or deformity. I find, on hyper-extending the thighs, a little reflex spasm; but, as I turn her over and crowd my fingers well down into the iliac fossæ, I encounter no marked tumefaction.

This other child, a girl about twelve years old, did present in the early stage of her trouble a deformity of the thigh. She walked with the right thigh flexed, and "hip disease" was diagnosticated. When she came under my observation, there was already a marked deformity, and she presented an abscess in the right iliac fossa, extending down under Poupart's ligament and showing itself again in Scarpa's space. A second abscess was found in the upper portion of the left thigh, front and rear, presenting a large tumor here. Under ether, the abscess on the right side was opened after the plan of Mr. Edmund Owen, of the great Ormond Street Hospital for Children, in London. His plan is to make a counter-opening in the ilio-costal space, and to cleanse the sac out as well as possible through and through. No reaction followed this procedure. The parts were

dressed with antiseptic care, and in a few weeks both wounds had closed. The abscess on the left thigh was opened anteriorly and posteriorly, a drainage-tube being carried through and through. The sac here was literally filled with bone detritus, and it required a long time to get the pieces of bone out from the meshes of the tissues. The result here was excellent; but after five or six months the sinus in the right ilio-costal space opened and discharged a little. Later on, the sinus on the posterior aspect of the left thigh opened again. The girl has had scarlet fever recently, and now, eighteen months after the opening of these abscesses, there is a slight discharge from each side. The case illustrates the unreliability of any method of curing these abscesses, and emphasizes the importance of maintaining excellent health and protecting the bone from trauma.

Treatment.—The treatment adopted, now, for this case, is to keep the parts clean about the opening, to apply simple dressings, to make for her a new plaster-of-Paris corset, to give her cod-liver oil and some assimilable preparation of iron. That which I prefer for children is the albuminate of iron. As the girl's health improves, I shall curette these sinuses, and inject them with the peroxide of hydrogen.

I prefer the plaster-of-Paris corset and the plaster-of-Paris solid jacket for the treatment of dispensary and hospital cases, because it is easy of application when the method is once learned, and because one can feel pretty sure that no one interferes with the treatment. It is well to bear in mind, however, that very few physicians know how to put on a plaster-of-Paris jacket. It seems so simple, that one does not care to waste the time in learning. This is evidently a mistake. If the gentlemen present can learn to apply plaster properly, I am very sure that good results can be obtained.

Take, now, this case about which we have just been talking. I have secured a seamless shirt. This is obtained of Lawson, 783 Broadway. It is made of Angora wool, is soft, fits well and is not very expensive. The plaster of Paris employed is obtained of the White Dental Manufacturing Company, is always reliable, comes in six and twelve-quart cans and does not require salt or alum in the water. It is very important to secure crinoline that is not sized with glue. That which is sized with starch makes an excellent bandage for the plaster, but if there be any glue in the sizing, the cloth should be washed before the plaster is rolled into its meshes. The bandages should be twelve yards long and from two and a half to three and a half inches wide, the plaster rolled well in; and when the bandage is finished you should wrap some tissue paper around it unless you expect to use it the same day. The padding over the salient points most serviceable is table felting. It is a double-faced Canton flannel material. The best position for a patient when a jacket is to be applied is partial self-suspension. The head portion of the swing is used, but the arm pieces are no longer employed. The arms are fully extended above the head, the hands grasping the wooden knobs on the rope, and by putting one above the other slowly, pulling down at the same time, taking care not to bend the elbows, just enough traction can be made to secure comfort. It is not necessary to get the heels from the floor. The next step is to have the patient pose. Get the column as straight as possible. With the seamless shirt pulled down and the felting over the salient points, such as the spinous processes, the anterior superior spines, and any projecting free ribs, the plaster bandages are applied, beginning at the bottom. A pail of warm water and one or two good assistants are necessary in order to make a neat jacket. As the bandage is rolled about the body and not pulled tightly, let each layer be rubbed well with the hand. This rubbing will enable one to determine where the weak points are, and these can be reinforced. Dinner pads are not employed. The jacket should be thin, not over one-eighth of an inch in thickness; even this is too heavy for children. The patient can remain suspended until the plaster sets, and this will require only a short time, especially if the precautions have been taken about good crinoline and good plaster. While the plaster is setting, the jacket can be trimmed out under the arms and in the groin. The thighs may be flexed in turn, so that barely enough of the jacket may be removed to enable the patient to sit down.

As this is a convalescing case, I propose to make a plaster corset of the jacket. So I cut down in front while the patient is still suspended, cut through with bandage scissors, loosen the straps at the top over the shoulders and then remove the jacket carefully, bringing it together immediately and holding it with a roller bandage. Any fur-

ther trimming of the edges can be done now. It is rolled up in some paper and placed over a kitchen range, on the space for warming plates. It is left here for twenty-four hours. After it is thus thoroughly dried, strips of leather, with shoe hooks attached, are sewed on in front, after the shirt has been turned up over the jacket and sewed at the top and after the edges in front have been covered with kid or chamois or adhesive plaster, as one likes.

Let it be distinctly understood that the corset must be used only in convalescing cases. In this next patient, an adult from California, who presents the lesion high in the upper dorsal region, I shall apply a solid jacket with a jury mast or head spring. I always employ a jury mast when the disease is above the seventh or eighth dorsal vertebra. I do not believe it necessary where the disease is lower than this region. The spring you see is made of heavy steel, and has chin and occipital straps; the frame work is fitted well to the back before the patient is suspended; and after the first two or three layers of plaster bandage, the frame thus fitted is applied, and the jacket is completed. As this patient has paraplegia from compression myelitis, and the compression myelitis is dependent on the Pott's disease itself, the recumbent posture will have to be assumed until he is able to move his limbs. The favorite treatment with me, in addition to the jacket, is to apply the Paquelin cautery, which I can apply above the *bosse*, and to administer large doses of potassium iodide. By large doses I mean from forty to sixty grains three times a day, continued for three months. Another important feature in this case is an immense abscess, which you see, extending from the *bosse* up to the occiput on the left side of the median line. This is to be opened freely, the contents evacuated, and the wound partially closed by suture.

As for abscesses, I do not interfere unless they are in the way of my dressings, or unless the patient is apparently suffering from their presence. As a rule, a cold abscess gives no constitutional disturbance. The cavity itself is a receptacle for the broken-down material of the bone and is harmless so long as it is not exposed to air.

The question as to how long a horizontal position must be maintained, or—what is of more importance to you gentlemen—how long before one can feel sure that convalescence is established, is difficult to answer, because the support to the column is so often defective, and for this reason the disease is perpetuated. If the patient could keep a good solid jacket applied for eight or twelve months without ever removing it, or if when it was necessary to remove the jacket a new one could be applied without disturbing the reparative process by any passive or active motion, then a year would be sufficiently long to continue this careful treatment. But the jackets break down sometimes very easily, the parts have not been well supported, and hence it takes from two to four years to bring about sufficient repair to enable a surgeon to give a good prognosis. The horizontal position is not maintained at all with this method of treatment. On the contrary, we let the patients lead an out-of-door life. If they are able to take the advantages of climate, we have them travel. In other words, we treat the case just as we would any tuberculous case.

The sign of convalescence are these: freedom from pain; no tenderness on concussion or jar; the improved condition of health and a general appearance of ankylosis. By "general appearance of ankylosis," I mean compensating curves above and below the bosse.

In conclusion.—1. The treatment of Pott's Disease of the Spine should be the application of a perfect fitting splint to the back so as to avoid all friction or irritation from the slightest movement. 2. The splint should be removed very infrequently, and, as a solid plaster-of-Paris jacket well applied must necessarily remain on a long while, this makes the best appliance for the average surgeon to employ. 3. The jury mast or head spring should be used where the disease is above the eighth dorsal. 4. Abscesses should be treated according to circumstances. No hard and fast rule can be laid down for their management. When they are opened, antiseptic precautions must be observed, not only at the time of opening, but on many subsequent dressings. 5. It requires from two to four years to effect a cure in this disease. 6. The appliances should be such that the patient can have the benefit of fresh air, an out-of-door life, and the best climate possible.

—Paronchynine is the name given by Dr. Schneegans to a new alkaloid extracted from herniaria glabra. The drug is official in Austria, and is employed as a diuretic.

TEALE AMPUTATION.—ABDOMINAL SECTION.—PRIMARY UNION AFTER AMPUTATION OF THE FORE-ARM.—SCHIRRUS OF THE BREAST.—PARTIAL ANCHYLOSIS OF THE KNEE-JOINT.

BY THOMAS G. MORTON, M. D.,

ONE OF THE ATTENDING SURGEONS TO THE PENNSYLVANIA HOSPITAL.

Result of a Teale Amputation.

Gentlemen: It has always been my habit to report to the class the progress of patients and results of operations presented here, so that you can complete your records of the cases. In conformity with this rule, I will state that the Teale amputation of the leg which you saw me do last week has progressed without a single unfavorable symptom. On the third day I dressed the stump and removed the rubber drainage-tube, which is of no use after the first few hours, and, as it is a foreign body, it should be dispensed with as promptly as possible. After this dressing, there will be no further occasion for disturbing the stump for several weeks, indeed, in all probability, not until complete consolidation has taken place.

Abdominal Section for Intestinal Fistula.

The man upon whom I performed abdominal section for fistula of the intestine has also done remarkably well. You recall his history. He had suffered with an acute attack of inflammation and abscess in the appendix region, or the right inguinal area; and this was believed to have been caused by perforative inflammation of the appendix vermiformis. The operation was undertaken last May; a lateral incision was made, and a large abscess-cavity was reached; but the appendix itself could not be found. The intestines were so involved in the inflammatory condition and so glued together by lymph, that further search for the appendix would have been attended with great risk of tearing the walls of the bowel. It was, therefore, thought best not to make a more extended search for it, after some fruitless attempts to discover it. However, the parts were thoroughly cleaned by removal of the sloughy tissue and exudate, the abdominal cavity was well drenched with hot water, and a glass drain was carried deep into the cavity of the pelvis. The patient subsequently made an excellent recovery, except that a small fistula remained, which gave evidence of being connected with the intestine.

The operation of one week ago consisted in re-opening the abdominal cavity; which was done in your presence. When I turned up the under surface of the cæcum, I found, as you remember, an opening directly into its cavity of sufficient size to admit the end of my little finger. This perforation occupied the site of the appendix, and unquestionably was caused by the sloughing off of the appendix at the time of the first attack, last spring. After first paring them, I brought the edges of this opening together with several Lembert sutures. After the belly-cavity was cleansed, and a glass drain had been inserted down to the lowest part of the pelvis, the wound of operation was approximated with interrupted silk sutures. The glass drain was syringed out every four hours for the first day, and then less frequently until the fourth day, when as there was no accumulation in the tube, it was removed and a rubber tube of smaller caliber was substituted. This in turn was cut away each day as the wound filled up, until at the end of the week, when it was dispensed with. Our patient bids fair to make a permanent recovery, as there is every reason to believe that the opening into the intestine has been completely closed by the sutures.

Primary Union after Amputation of the Fore-arm.

The patient whom I now present well illustrates the occurrence of primary union of the wound of operation after amputation of the fore-arm. He is 26 years of age, and was brought here two weeks ago, suffering with a crush of the hand and wrist, caused by a machinery accident. There has been only one dressing. It is now only fourteen days since the operation was performed, but the stump has entirely healed, and, as you see, it is quite firm. The man can now be discharged from the hospital.

These cases well illustrate the value of antiseptic surgery. In former times, suppuration always followed such operations; and secondary hemorrhage, blood-poisoning and pyemia were not uncommon. Now, if suppuration should occur, it simply indicates that the surgeon was not able to secure asepsis; generally because the rules governing this method have not been followed. I am

inclined to think, from my own observation, that the practice of using bichloride solutions which are too weak to disinfect the field of operation, by some surgeons, may account for their want of success in antiseptic work. I call attention to this, in order that I may tell you that, in my opinion, solutions of mercuric chloride made in proportion of 1 to 1,000 are not too strong when operating upon adults; of course a less strong solution should be used in the case of children, or when the skin is broken.

Carcinoma, or Schirrus, of the Mammary Gland.

The patient I now bring before you was admitted four days ago. She is 36 years of age, married, and has several children. She says that about eight months ago she accidentally received a blow upon her left breast, and that this was followed by pain, which continued. Then she noticed that the gland was becoming gradually hard, and the nipple altered in appearance. Her general health has also failed, and she sleeps poorly and has well-marked nervous symptoms.

The tumor, as you notice, is of considerable size and involves the entire gland. It is very dense and hard, but is freely movable upon the sub-mammary tissues, showing that it is free from connection with the parts below. The nipple is retracted and deformed; and upon pressure there exudes from it a watery fluid. The rapid growth of this tumor, its hardness, the attendant pain and the condition of the nipple, all indicate malignancy: that this is a carcinoma of the mammary gland. Unquestionably, in my judgment, this is a case of schirrus of the breast. Treatment may be palliative, or radical by removal of the diseased gland. Palliative treatment would consist in anodyne applications, the external use of the oleate of morphia and perhaps electricity, and the internal use of arsenic. I have little faith, however, in any such plan of treatment, but advocate early removal of the entire breast. A careful examination of the axillary region shows that at this time there is no involvement of the lymphatic glands in this situation; so that there will not be any necessity for opening up this region.

I will now proceed with the operation of extirpating the mammary gland. The breast is included between two elliptical incisions, the deformed nipple being nearly in the centre of the portion removed. After the skin is freely divided, as a rule, the gland can be torn out with the fingers aided by the handle of the knife as you observe. To the few bleeding vessels, I apply hemostatic forceps, and upon each a fine gut ligature, which is cut close and will be buried in the wound. The wound is necessarily large, and drainage is of great importance. I am now making at the bottom of the cavity an opening through the skin, towards the axilla, and through this incision I now pass the rubber drainage-tube. By this means more effective drainage is secured and immediate union of the wound is favored. The edges are brought together with interrupted gut sutures, and a piece of protective is placed over the line of the wound, and over this a thick layer of wet bichloride gauze, held in position by a gauze bandage, also wet with the same sublimate solution. Outside of this is a mass of dry bichloride cotton, which is also held in position by dry gauze bandages. Finally, a muslin roller bandage is applied over all, so as to confine the arm to the side, which completes the dressing.

Partial Anchylosis of the Knee-Joint.

This little patient, five years old, was admitted for treatment of partial anchylosis of the left knee. It is stated that about three years ago he received an injury which was followed by inflammation and abscess of this joint. Several fistulous openings resulted, which in time closed; but adhesions were formed between the condyles of the femur and the head of the tibia and the patella. These interfere seriously with the function of the joint, permitting very little motion. The angle of flexion is such as to prevent use of the limb in walking, constituting marked deformity.

The question arises, what can be done to give the child a more useful limb? If the leg cannot be extended by exerting a judicious amount of force, and without danger of causing a recurrence of inflammation, excision would be a better operation, because safer. With the exception of the elbow, the knee has been excised more frequently than any other joint, and with excellent results, now that we have absolute control over the dangers which formerly attended such operations by the adoption of antiseptic precautions in operating. The

propriety of excision, therefore, may now be properly considered in such a case as this.

The patient being fully under the influence of the anæsthetic, I will examine the joint more carefully. I grasp the thigh and also the leg, while I am making firm pressure upon the front of the joint. I find that, by exercising some force, I can bring the leg into very good position. I also ask you to notice that the hamstring tendons are not at all tense, so that their section will not be necessary. I place a well-padded straight splint underneath the joint, extending from the upper part of the thigh nearly to the ankle, and bind the limb firmly upon it.

In making an excision of the knee-joint, I always make a vertical incision, instead of a semi-lunar, or other section. I find that drainage can very readily be effected by piercing the skin on the side, for the passage of the rubber tube. In this way the wound of operation can be closed at once, and primary union can be obtained throughout its extent. If the patella is found in good condition, it can be divided vertically and retained. When this is done, its posterior aspect, or cartilaginous surface, should be removed; the patella will subsequently consolidate with the femur, and will materially strengthen the part. Of course, if the patella has been at all involved in the disease, it should be excised.

COMMUNICATIONS.

MEDICAL LEGISLATION.

BY J. M. TAYLOR M. D.,

CORINTH, MISS.

Public sentiment, both professional and lay, has always been divided on the subject of regulating the practice of medicine by legislative enactments. The opposition in the profession unfortunately includes some of its most distinguished members, although they are largely in the minority, yet when reinforced by the great horde of quacks and irregulars, claiming to belong to the profession, they have been able in some States to defeat or to cripple every effort which has been made to secure efficient legislation. Comprehensive and well-matured bills have been presented at various times in the several State legislatures, but through the positive opposition of some, and the indifference of other members of the profession in good standing, aided by those whose occupation was in jeopardy, they have been defeated, or so emasculated and mutilated as to fail to accomplish the intended objects of their authors. In every instance these laws have been mere compromises, and consequently have accomplished a very small part of what they should have done.

A very mistaken notion in regard to the intention of such legislation prevails, not only among the masses, but even among physicians otherwise well informed. It is believed by many that all such laws are designed to protect and benefit physicians as a class, and the constitutionality of these laws have been questioned in the courts as class legislation. But the question of constitutionality has been settled conclusively in the higher courts, and now it is only a question of æsthetics in the profession, and of personal interest among pretenders. The suppression of quackery by law would not only protect the people against the practices of the totally incompetent, but would elevate the profession and increase incalculably its efficiency in combatting disease, and in promoting health among the people. This no one can doubt. But the opponents of legislation say the profession is so noble, and its character so sacred, that it would degrade it to appeal to the law for protection. They say "let us not besmirch our garments with the filth of the law." But the law is not too filthy to protect us when maliciously prosecuted, or when we wish to enforce the collection of compensation for our services. Doubtless, however, our superlatively dignified brethren would scorn to resort to the law to collect their "bills." But if doctors' bills were ignored, and excepted from the operation of the law, these gentlemen would soon find it necessary to lower their dignity by resorting to some means to secure the filthy lucre required to supply their daily wants, thus degrading their exalted calling to the level of ordinary business pursuits. As long as necessity forces the doctor to place a money value on his services, and as long as he is compelled to rely on his practice for his bread and butter and the other necessaries of life, just so long must he submit to have his practice regulated by law on the same principles as every other business. The days of stilted dignity in the profession, which has always been more

a cloak for ignorance than real dignity, have passed away, and the tendency is now to consider all questions on their real merits.

Narrow-minded persons may suppose because the agitation of legislation to regulate the practice of medicine originated in the profession, that its advocates are actuated by selfish motives. But it requires only a little impartial consideration to see that it is the reverse. Any benefits that may redound to the profession will be wholly secondary and resultant upon the benefits conferred upon the population at large. Again, the objectors say "away with all legislation, let us have an open field for regulars, allopathics, hydropathics, homœopathics, botanics, eclectics, faith doctors, Indian doctors, and all the rest; then we shall have a survival of the fittest." This virtually admits the equal claim of all so-called systems to the confidence and patronage of the people—a very strange and inconsistent position for a regular physician to take! This kind of reasoning seems to result from a very illiberal and mistaken view of the objects of the proposed legislation. Protection for the profession or any faction of it, has been distinctly disavowed, and a careful examination of the various laws proposed will convince any unbiassed mind that the benefits are intended for the general public of all classes. The protection is for the people against incompetency, whether found in the regular profession or among homœopaths or hydropaths, or any other "paths."

The responsibility, then, for depriving the people of these benefits, and for continuing the gross impositions of quackery rests on those members of the profession who oppose legislation under the mistaken notion that it will lower the dignity of the profession. It is a fact which probably will not be denied by any one, that the non-professional public have always been willing and ready to accept and abide by any principles of conduct, or any line of policy that the members of the profession may agree upon. But if the profession stands back on its dignity, and perches itself on an utopian eminence above the ken of ordinary mortals, how are the people who are uneducated in such matters to appreciate the difference between the true and the false, between the physician and the pretender? If the self-inflated profession will continue to ignore the intelligence of the people, under the plea that its business is too exalted and recondite for ordinary minds to comprehend even the principles upon which it is based, what is to prevent the people from accepting as true the absurd, but plausible stuff with which the country is flooded by means of almanacs, circulars, and other means very well known. We may rest assured the enterprising promoters of quackery will leave nothing undone to delude and mislead the public mind.

No one understands the weak points in the policy pursued by the profession better than they, and they work them for all they are worth. Then let the people be instructed in everything necessary to enable them to distinguish the worthy from the unworthy. This instruction can only be imparted correctly by the profession, and it should be done by direct communication and systematic efforts, and not left to mere chance or accident. Until that millennium shall arrive, in the dim, distant future, when the people shall have been thus educated, let them have the benefit of protective laws. We have laws to protect virtue and morality, laws to punish murder, theft and crimes of every hue. Does anybody doubt the propriety of such legislation? Does the necessity for it indicate any doubt of the superiority of virtue over vice, or of the power of truth to overcome falsehood? We protect the people against the highwayman and the robber openly pursuing his occupation, and it is just as much the duty of government to protect the lives and health of the people from the incompetent and impostors as it is to protect their persons and property from the vicious and dishonest.

A CURIOUS CASE OF OPIUM ADDICTION.—MORPHIA BY NOSE.

BY J. B. MATTISON, M. D.,

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Measured by the standard of a personal experience devoted to the study and treatment of this neurosis for nearly two decades, of all forms of continued opiate using among the better classes, in any walk of life, that from hypodermic taking is by far the most frequent. Morphia by the mouth ranks next. Then comes the use of the vari-

ous liquid preparations, and lastly, that of the crude drug. Among the lower orders, for obvious reasons, the reverse obtains. Probably few country shop-keepers do not include opium among their wares, to answer the demands of some habitués who rely on a daily supply quite as much as for their tea or tobacco. To this class the common term, "opium eaters," is quite correct; but for the former the misnomer is at once apparent. Only two opium eaters, strictly speaking, ever consulted me or came under my care. One was a most excellent and intelligent literary gentleman whom I had the pleasure of serving after he had been addicted for ten years to gum opium, reaching a maximum of thirty-six grains per diem, and using it after a somewhat peculiar fashion—a bolus of eighteen grains, twice a day, morning and noon; a six hours interval, and then nothing more for eighteen hours. This patient made a very gratifying recovery—dismissed on the twenty-sixth day of his treatment—and has since done himself credit by remaining well, and giving to the literature of the subject an interesting and instructive narrative of his case and cure.

Somewhat rare instances of habitual opium taking per suppository or injection are sometimes noted. I have noted only two.

The following case is quite unique, and so far as I know, medical annals have not a parallel. Dr. Von Klein's paper in the MEDICAL AND SURGICAL REPORTER, November 1, 1890, makes it of special interest.

Mr. A., thirty-five years old, had been subject from boyhood to attacks of headache, sometimes occurring twice a week. After the age of fifteen these attacks decreased in frequency, seemingly because he led a more active out-door life; but during the next twenty years they never averaged less than one a fortnight. His general health was good and he was actively engaged in mercantile life.

In the autum of 1879, while suffering from a severe attack, a good (?) Samaritan, commiserating his discomfort, and learning the cause, suggested and proffered a certain medicine, which this party had found quite effective. This remedy was in liquid form, and to be used by *snuffing* five to ten drops, and if no relief resulted in twenty minutes, was to be repeated. Mr. A. gladly availed himself of this offer, and in a few minutes his headache was a thing of the past. Much elated at securing such rapid relief, and eager to possess himself of so great a boon, he asked the origin of it, and, in reply, was given the prescription number, with name and address of the druggist. Reaching town, he lost no time in providing himself with a supply of his newly-found panacea and for several months, quite unaware of its nature, had recourse to it with every recurring bout of pain.

In the spring of 1880 he began to have varied discomfort, apart from his headache, for which his migraine remedy also gave him relief. His suspicion, it seems, was now aroused, and he consulted the pharmacist as to its make-up, and was informed that it contained morphia, the prescription, in fact, consisting of ten grains of morphia to the ounce of water, of which the patient was directed to snuff from five to ten drops and to repeat in twenty minutes if required.

Even now not fully aware of his danger, he continued to use the remedy a time longer, when, for some supposed malarial trouble, he consulted a physician and apprised him of the situation, who, while uncertain as to whether the opiate thus taken would make itself a necessity, warned him of a possible peril, and advised its discontinuance.

The effort was now made to follow this advice, but with the usual result—failure. The attempt at self-cure, both by sudden disuse and by gradual decrease, was repeated many times, but never with success. So Mr. A. kept steadily to his morphia, increasing the amount from time to time, until he reached a maximum of one drachm in from four to eight ounces of water, per nares, each day. This was his regular stipend for eighteen months prior to coming under my care. Only once was any change made in the manner of taking. A short trial by the mouth caused so much gastric discomfort that the original method was soon resumed. The snuffing was repeated from three to eight times a day, beginning before the morning and ending with the evening meal. The invariable effect of any taken later was severe headache the next morning. All the opiate effect was obtained through the nasal membrane, as special care was taken to prevent swallowing it, and whatever amount returned or passed into the mouth was rejected.

During his addiction the man enjoyed marked immunity from his old-time headache, but this good fortune was not unalloyed, for the ill-effect of the morphia became decided, as shown by impaired eye-

sight, defective appetite, damaged memory, lessened avoirdupois, lost virile strength and desire, and an alvine torpor so marked that enormous cathartic doses were demanded—to say nothing of the minor discomforts with which every habitué is more or less familiar.

Such was Mr. A.'s condition on presenting himself for treatment. For various reasons it was deemed judicious to change the form of his opiate taking, so it was given by the mouth, and, after experiment, a morphia supply of from fifteen to twenty grains was found sufficient for his daily need.

Another leading indication related to his bowel inertia, and the initial attack in this direction was seven improved compound cathartic pills at bed-time, followed by a morning draught of two bottles of Hathorn water. This secured one moderate movement, and was repeated each evening, changing the laxative water to Hunyadi—of which a much smaller amount proved effective—and reducing the nightly pills, until, in ten or twelve days, they were dispensed with and the Janos water was relied on.

Special treatment was now begun; the quantity of morphia was gradually lessened; and in eight days the usual opiate was abandoned. The reflex results were not marked—mild restlessness, debility and insomnia being the most prominent. The former required no baths, the second was lessened by electricity—both currents—cold-shower baths and internal tonics; while full doses of fluid extract of Indian hemp sufficed to secure sleep. The stomach was undisturbed, except one slight vomiting, forty-five hours after quitting the opiate, and the maximum bowel movements were four during one day; usually there were only two or three actions daily. No astringent was called for. The patient did not lose a single entire night's sleep, and hypnotics were dispensed with in less than ten days. There was anorexia for several days, followed by an appetite so vigorous that indigestion resulted, and diet restraint was demanded. Signs of returning sexual strength were noted in less than a fortnight, and power in this regard was regained before the sixth week was ended.

The increase in weight was notable, averaging, for some weeks, nearly a pound a day. This, doubtless, was largely due—apart from the morphia eating—to his nutrient regimen, consisting of full feeding, emulsion of cod-liver oil with pepsine and quinine, in half-ounce doses thrice daily, to which was added five drops of Fowler's solution, and a constant current séance at bed-time.

This case teaches more than one lesson. It gives added proof of opium's ensnaring power, be the manner of its taking what it may. Doubtless this differs; and judging from the testimony of patients, the hypodermic method is most subtle and swift. But let no one, whatever the form, imagine himself safe, nor that he can control and abandon his practice at command.

NASAL CAUTERIES.[1]

BY EDWIN R. LEWIS, A. M., M. D.,

INDIANAPOLIS, IND.

In opening the discussion on the subject assigned me—Nasal Cauteries—I fear that my views may be considered one-sided; for, to my mind and with my experience, it seems that most of the so-called nasal cauteries have not much to be said in their favor and have much to be said against their recognition, except as relics similar to those exhibited in modern asylums for the insane. They have been advocated and used, but, now, we have a better way. London paste or Vienna paste or caustic paste in any form I never used in the treatment of nasal hypertrophies. I have patients under my care who wish that it had never been used on them. It is easy to see in their cases what harm has been done by its use. In the cases referred to it was used by specialists competent to make the best use of it. I once used nitric acid a great deal and have now a well-worn Smith's canula, attesting the faithful use made of it during one period. Many of my old patients still express gratitude for work which I did for them with strong nitric acid. Glacial acetic acid is kept in my office, but I never use it; and, although I once expected to do so in certain cases because of favorable notices made regarding it, I have never done so. Chromic acid in many cases has more to be said in its favor, certainly. In the treatment of posterior hypertrophies by means of a guarded porte-caustique, chromic acid can be easily and safely used, and the results are satisfactory in many cases. The general practi-

[1] Read before the American Rhinological Association, October 6, 1890, at Louisville, Ky.

tioner who is not provided with the apparatus of a specialist, and yet is called upon to treat nasal hypertrophies, will do well to use chromic acid in preference to any other caustic. Nitrate of silver needs to be mentioned only to be condemned in nasal treatment.

In my office and practice the galvano-cautery has taken the place of all other nasal cauteries. This is not a case of prejudice, I am sure, but a clear case of "survival of the fittest." The galvano-cautery does its work neatly, aseptically and, when properly used, painlessly and bloodlessly. It is under perfect control, and the cautery point or knife can be put exactly where it is wanted, and the action can be limited to the desired part. All this can be said of no other nasal cautery; at any rate, it cannot be said so emphatically and so truthfully.

There are many forms of battery used and recommended; and I have tried many. For all nasal operations except the removal of large growths by the loop, a small storage battery is the most useful and the most convenient. I have a small one in my office which is in daily use for all nasal operations requiring the cautery, with the exception mentioned above. In the office it is kept constantly charged from four cells placed in the cellar beneath. It may be easily detached in a moment, and taken out of the office and city, and used for days without being re-charged. For a loop, a larger or double battery is necessary; but even in that case the battery can easily be carried in the hand. A rheostat is attached to the battery for regulating the maximum heat of the electrode. This rheostat can be adjusted so that the electrode shall be heated to a dull red, a cherry red or even to a white heat. I have brought my small storage battery and a few fixtures for illustrating the method and explaining the minor but very important details. Properly used, the galvano-cautery gives most remarkably satisfactory results in many classes of cases.

To illustrate what is perhaps an old story, I select a few typical cases.

Case 1. Mr. K., 55 years old, was referred to me by Dr. D. A. Thompson, June 27, 1889. He had come from a distant part of the State to seek relief from a supposed ear trouble. He had suffered, as he said, for weeks from roaring and cracking sounds in both ears. He found it impossible to attend to any business satisfactorily and difficult to sleep. For many days he had felt pain in addition. Dr. Thompson found nasal hypertrophies; concluded that they were the principal, if not the sole cause of the trouble, and referred the case to me.

I treated the patient for a few days with a view to removing the irritation and reducing the congestion. There was a deviated septum, and very decided hypertrophy of both lower turbinate bodies. I cauterized on the fifth day, again on the eighth day, and again on the twelfth day, treating the patient daily in the intervals. He was then allowed to go home for a week, his relief from the roaring sounds being marked. He returned after ten days, and the cautery was used again. He left at the end of the week, thinking himself a well man. He has had no return of the ear symptoms to my knowledge.

Case 2. Mrs. C., 44 years old, was referred to me by Dr. J. C. Stillson. She was a victim of severe headache, the pains centering in the eyes and the pain in the right eye being intense. The tension was great, and there was some fear expressed of glaucoma. The engorgement of the turbinate bodies was great, and the nasal membrane was so exquisitely sensitive that it was with difficulty that cocaine could be applied on cotton. The relief after the action of the cocaine had been obtained was marked. In this case treatment was prolonged over several weeks before the cautery was used. The results were most satisfactory. The eye pains disappeared and the headaches became infrequent and slight. But with this relief the patient was content, and discontinued treatment, expressing hearty thanks. This summer she returned for further treatment, as the headache and eye pain were returning. She is now under treatment, having tried to get along without further use of the cautery, but she has decided to resort to it again. She says it does not pain her, but she dreads the idea of a cautery.

Case 3. Mrs. B., 35 years old, was referred to me by Dr. J. S. Thompson, May, 1889. She had used glasses for a few years, but lately had felt much pain in her eyes and was unable to read with any comfort. The chief trouble was in the right eye. Dr. Thompson found the glasses right, I believe, or possibly prescribed a slight change; but he suggested treatment for the nasal hypertrophy. She was unwilling to admit any nasal trouble, saying her nose was all right, but that her eye was the source of trouble. She fought it out, until friends and her hus-

band persuaded her to be treated by me. I found marked hypertrophy of the right lower turbinate body, treated it for a few days, and then cauterized it. The relief was great. The pain disappeared; reading became possible again; and in a few weeks this patient left me cured and grateful.

The above are typical of many cases where eye and ear troubles are relieved by the use of the nasal cautery. Simpler treatment directed to the nasal membrane relieves such troubles; but the cautery is called for where there is nasal hypertrophy, if the relief is to be permanent.

There is a class of throat cases best treated by the nasal cautery. Such cases come to us originally, or are referred to us by the family physician for treatment, because of some chronic trouble in the throat. I allude now to a class of patients who do not refer their trouble to their noses at all; they do not feel conscious of nasal disease; and when questioned they are apt to say, in many cases, "the nose is all right." Cross-examination brings out the fact that the nose is not all right, but the patient finds the chief trouble in the throat.

From 1884 to 1888 I was Professor of Chemistry in Wabash College, and during that period was called upon to treat the throats of a large number of students, especially at times of competition for prizes in declamation and oratory. It was noticeable that the worst cases were troubled with some form of nasal obstruction. When they were treated for the relief of such obstruction, it was found that the throat was benefited; in some cases where a nasal obstruction was removed by the cautery, the throat trouble entirely and permanently disappeared. To bring out the point I wish to illustrate, let us review briefly the treatment of simple, non-specific cases of chronic laryngitis, so-called, as given by those who write specially upon diseases of the throat. Mackenzie, Vol. I, page 211 (*Wood's Library*, 1880), says, "Local remedies of an astringent character are the most important agents in the treatment of chronic laryngitis." Seiler, in 1883, says the same. Sajous, in 1885, adds that all affections of the pharynx should be appropriately treated. Lennox Browne, in 1887, says: "The treatment of co-existent pharyngeal disease is of primary importance, many cases of laryngitis getting well if so treated higher up." Seiler, in his third edition, published in the latter part of 1888, recommends first of all the removal of the cause by the removal of nasal obstruction when it exists, getting still higher up for treatment. Rumbold, about the same time, says: "Chronic laryngitis is never idiopathic, it is always secondary;" and he puts it in large letters.

It is evident that there has been the evolution of a rational treatment of chronic laryngitis, in many cases, founded upon the recognition of causes not at all mentioned ten years ago, and until within two or three years barely referred to.

I will cite a typical case.

Case 4. The pastor of a prominent Presbyterian church came to me in 1887. He was a large, strong, healthy man, 42 years old. He had been finding it more and more difficult to preach, and for a year had been preaching with so much annoyance to himself that his work aggravated his complaint. He had studied elocution, and knew how to use his voice properly. He had consulted good specialists, and had been treated; but the treatment had been limited to the throat. The larynx was congested, the pharynx very much so, and its secretion was thick and sticky. The lower turbinate bodies were much hypertrophied; the left one so much so that the naris was almost completely occluded. Treatment was begun and confined to the nose, although his throat was troubling him so much that he did not care for the difficulty in breathing through the nose. The turbinate bodies were cauterized twice on the left side and once on the right side. It was not four weeks before he felt relief in his throat, although the treatment was conducted under difficulties, the patient coming to me from another city and continuing to conduct all his church services, including special services. He went off for a few weeks' rest, and returned, saying his voice was almost as clear and strong as ever. This patient comes to me occasionally for examination and one or two treatments. The larynx looks clear and healthy, although no treatment has ever been given it directly. The old symptoms, which threatened to compel him to give up his pulpit work, have disappeared.

A fourth class of cases comes to us, or are referred to us, because of nasal obstruction recognized as such, and manifesting itself as such.

We then have a large class of patients suffering from pain or disturbance of some kind in eye, ear, throat and nose, the cause of trouble in whom is referable to nasal ob-

struction. There are also many more or less obscure cases of various kinds, the trouble in whom is caused or aggravated by nasal obstruction. This fact is made apparent by the relief obtained from suitable treatment directed to the nasal membrane. Some patients are satisfied with such relief, and decline anything further, having a dread of all "operations." But the relief in many of these cases is temporary. Full and permanent relief can be obtained only by a radical reduction of the nasal hypertrophies. The snare may be used for removing large hypertrophies in the posterior part of the lower turbinate bodies. Chromic acid may be used for small hypertrophies in the same region; but in the large majority of cases the galvano-cautery is to be preferred. There is, then, in my opinion no one agent which gives relief in so many different cases, and gives that relief so immediately and permanently, as does the nasal cautery; and when I say nasal cautery, I am sure that I do not exaggerate when I say that I have more grateful patients whose gratitude has been won by the use of the galvano-cautery than I have of any other class. It remains, of course, to mention the cases in which the results have been of a nature to awaken criticism of the operation. These, in my experience, have been few, but they have been instructive.

Case 5. Mrs. G., 40 years old, was referred to me by her family physician. She was a victim of neuralgia, and had been unable to use her eyes for several weeks, when she came to me in May, 1889, because of the pain felt in them. Her physician, being the family physician of Mrs. C., referred to above as Case 2, it was thought by him that I might help her. Dr. Thompson had examined her eyes and found no error of refraction or ocular trouble to account for the pain. She was treated for eight days, and then the right lower turbinate body was cauterized, being hypertrophied. Relief was experienced, and in two weeks the lower turbinate on the other side was cauterized. The improvement continued, and in a few weeks the patient was in a much better condition than for a long time. Uvulotomy was performed in July, to relieve a slight cough that seemed reflex; and after that, there being a slight return of the pain in the eye, I cauterized again, and did so thoroughly. I found that I had gone too far. The reaction did not confine the patient to her bed, but the neuralgia returned, and for weeks she was as bad as ever; and although she thinks I helped her at first, she does not feel very enthusiastic now about the galvano-cautery. She is a patient of a decidedly neurotic temperament, has been an invalid for years, and I ought to have been satisfied with the early results and should not have cauterized so recklessly the last time. It undid all the former work.

Case 6. Miss H., 20 years old, was referred to me for pain in the eyes and headache. I found hypertrophied bodies and much engorgement of the same, and congestion of the entire nasal membrane and naso-pharynx. She wished to have the work done in as few days as possible, and as cheaply as possible; and so I gave but little preliminary treatment and cauterized very freely the left lower turbinated body. It is not often that the knife is sunk so deeply and freely as it was in this case. The next day her mother came to me, saying the daughter had a severe sore throat, fever, malaria, etc., etc., giving, in fact, an unfavorable report. I prescribed for her, and the mother went away. The following day a younger sister called, and reported that the family physician had been called who pronounced the case one of diphtheria. She was ill for two weeks or more, when she returned to me for further treatment, which I conducted more conservatively, and she was entirely relieved of the trouble which brought me to her originally. With all due regard for the physician's diagnosis, I have always felt a little suspicious of that case of diphtheria.

In a few other cases, and a few only, there has been severe "sore throat" and fever, which has necessitated calling in the family physician. These cases were all in persons to whom I had not given much preliminary treatment, or when I had attempted too much at one sitting, always urged to it by the patient. It has happened that some cases have had the cautery used immediately —that is, the first or second day of treatment—or have had large hypertrophies freely and sufficiently cauterized at one or two sittings with only a few treatments—the whole work begun and completed within a week or ten days—and with satisfactory results. Others want to have the same thing tried with them. The results may be satisfactory in the end to the patient who has not recognized the danger signals that have been flying, and who has not realized what

anxiety I have felt lest I had gone too far or too rapidly.

I would therefore recommend the galvano-cautery most highly and enthusiastically, but I would couple the recommendation with the following cautions.

1. Adopt preliminary treatment even if there is not much congestion or hyperemia. I request, and in some cases demand, to have the patient under my treatment two weeks at least before cauterizing; and in many cases I wish a longer time. The results are always more satisfactory after such preliminary treatment, and the work to be done by the cautery can be better gauged.

2. Cauterize in the anterior portion first and use the edge of the knife—not the flat surface—sinking it in as far as seems necessary and drawing it forward. It seems best to keep the knife moving; if stationary for a while it is apt to stick to the tissue. I usually apply the edge of the knife to the inside, pressing it outward and drawing it forward, then, if necessary, the edge to the lower part, pressing it upward and drawing it forward. One electrode may be used for both operations when one is skilled in it, or two electrodes may be used, one horizontal when introduced and the other perpendicular.

3. Spray the parts well, but gently, with soothing sprays, after cauterization. I use oil of vaseline with a little eucalyptol in it, then a warmed Seiler's solution, and finally oil of vaseline again, medicated as before. The medicated oil is varied in different cases. Sometimes I use oil medicated with iodol.

4. Never cauterize on both sides at one sitting. I make no exception to this rule in my own practice.

5. Introduce the electrode while cold, apply it to the posterior part of the hypertrophy to be cauterized; then press the knob to heat the electrode, and begin to draw it forward. The maximum heat has been determined before by the regulation of the rheostat. I prefer a bright red turning to white, and obtain the best results from such heat. In this respect I confess that I do not agree with or understand Lennox Browne (3d Edition 1890, page 141) unless he refers to the heat required in the ear and throat and elsewhere. A black heat I never use; a dull red heat is apt to make the knife stick; a bright red heat, even if inclining to white, is to me the best. It must be remembered that the electrode is cooled considerably by the secretions, and by the body when made to enter it. The thumb should be withdrawn from the knob before withdrawing the electrode, so that it may be withdrawn cold.

6. The parts should be treated gently and soothingly for several days after cauterization; the secretions being removed and the naris cleansed with as little irritation as possible. If the other side is to be cauterized, a week should be allowed to intervene, if possible, before doing it. I recommend that the anterior part of the hypertrophy be cauterized first. If the hypertrophy is so large that it requires it, the next operation may be begun further back, and so on until all is removed at several sittings. Sometimes after a satisfactory cauterization of the anterior part, the posterior part can be easily removed with the snare, when it would have been very difficult to use the snare on the entire hypertrophy.

I apply the cocaine by means of cotton on a probe, using a fresh 10 per cent. solution. The cotton is gently applied to the anterior part, held in position a few seconds, then gently and slowly pushed back. Care is taken to have the sides and lower part of the hypertrophy well moistened with the solution, although the cotton must not be so saturated that the solution will run into the throat or drop on the floor of the naris. In a few minutes the parts are ready for the cautery. There is absolutely no pain; rarely is there a drop of blood; and the after pain in the great majority of cases is *nil.*

In a few cases there is slight nausea felt at the close of the application of the cocaine, or during or after the use of the cautery, *i. e.*, in perhaps one per cent. of my cases. In such cases a little wine or brandy is given, and the disagreeable feeling passes off. Never have I seen anything more alarming than that; if that can be called alarming.

—The Ambulance Surgeon has a rather unfortunate time of it. If he is behindhand he is abused; if he is in too much of a hurry he is blamed; if he thinks the patient will die on the way, and refuses to take him, he is censured; and if he takes the patient, and does get him to the hospital alive, the victim is announced to have been hustled to death. This is not a perfect world; but, take it all in all, our city ambulance system is probably better than that anywhere else. —*Medical Record.*

FOREIGN CORRESPONDENCE.

LETTER FROM INDIA.

Bombay Hospitals and Dispensaries.

Bombay does not lack in hospitals and dispensaries. The influence of affluence in raising such charity organizations by the native grandees is as praiseworthy as well directed. The greatest of the hospitals in India—nay throughout the British empire with but a single exception of Guy's Hospital—is the "Jamshedjee Hospital," justly so called from the name of its benevolent founder, a Parsee grandee. Its extensive compound, with a number of small subdivisions of the hospital, forms quite a little town in itself. The hospital can well accommodate one thousand patients freely and easily. A vigilant watch has ever been kept over it, to keep it most scrupulously clean and hygienic in every respect. It is in this hospital that medical students are trained for the profession. It is the most accessible one of all, from all quarters of the city. The next hospital is the European General Hospital, but it is not one-sixth so large as the "J. J. Hospital." Another is the G. T. Hospital"—the initials being those of the founder's and his father's names. It is located on the border of the most thickly inhabited part of the town. It is maintained by the Bombay Municipality. In its close proximity is the "Cama Women Hospital," built by another Parsee grandee. At first the hospital was under charge of Dr. Pichy Phipson, an American lady physician. Recently it is placed in charge of Miss Annie Walk, a medical licentiate, with Dr. Pichy Phipson as the visiting physician. Very objectionably close to it, and to all intents and purposes looking like its mere extension, is the "All Bliss Obstetric Hospital," and its name implies the purpose which it has been exclusively built for. This is yet another charity offshoot of Parsee munificence. The "C. J. Ophthalmic Hospital" is in the extensive compound of the "J. J. Hospital." This hospital too is raised by another Parsee millionaire. Being unnecessarily high, it looks more showy than useful, because one very commodious flat for indoor patients can be easily formed out of it. At one end of the city is the "Lunatic Asylum," established by the government; and its position is the most suitable one for the purpose it is meant to answer.

Now leaving hospitals aside, and coming to dispensaries, we observe that the "J. J. Hospital Dispensaries" (male and female) have the largest average daily attendance of about 150 in each section. All classes and conditions of meagre and miserable patients gather themselves there, for whom benches and chairs to sit on are altogether out of consideration. Next to it is the "G. T. Hospital Dispensary." Then there is a separate dispensary for women and children in charge of Dr. Pichy Phipson. Besides these charity dispensaries conducted by the government, there are others, *e. g.*, the "A. H. Wadia Dispensary," the "C. J. Ready Money Dispensary," the "M. N. Petit's Dispensary," all established and maintained by opulent Parsees, deriving their names from those of their founders, and attended by graduates of Bombay University.

D. D. Bode, M. D., D. D. S.

PERISCOPE.

Treatment of Lupus Vulgaris.

In concluding his letter from Paris to the *British Journal of Dermatology*, November, 1890, Dr. Louis Wickham gives the following as Dr. Brocq's opinion on the course to follow in the treatment of a case of lupus vulgaris.

Dr. Brocq says: "Having reached the end of this long study of the means actually employed in arriving at a definite cure of lupus, I hear the majority of my readers exclaim: But how shall we make our choice in the midst of all these methods? which process must we choose? None, I reply, to the exclusion of all others. This is eminently an occasion for eclecticism; long experience with the patient ought to tell the medical man what he ought to do, and, in my opinion, he will, in following his cases, have to have recourse to various means. This is, I can assure you, no mere invention on my part; indeed, I am only repeating what for many years certain English and American dermatologists have asserted.

"On uncovered places everywhere where it is indispensable to have a united, smooth, supple and regular cicatrix, in the face particularly, preference should be given to scarification. On the body, on the extremities, wherever the beauty of the scar is not an absolute necessity, recourse should be had to the galvano-cautery, to the thermo-cautery,

or even to scraping. In lupus of the mucous membranes these latter methods should also be chosen. These are the indications drawn from the site of the disease.

"Cases of lupus other than those of typical vulgaris should be treated by the actual cantery or by local caustics, and by antiseptics, such as sublimate, pyrogallic acid, salicylic acid, pure or associated with pyrogallic acid, lactic acid, mercurial plaster, red mercurial plaster, camphorated naphthol, iodoform, aristol, iodized glycerine, etc.

"The verrucose tubercles and the condition which was formely designated by the name of lupus sclerosus papillomatosus ('anatomist's wart' ought to be placed under this heading) may be treated very successfully by scraping, but since the time of the bacillary theory, they have been preferably destroyed by the hot iron.

"Lupus vorax will be stopped in its extending course by crossed linear scarifications carried out according to the rules previously laid down, the wounds being subsequently dressed with sublimate mercurial plasters or dry powdering with aristol and iodoform.

"But what must be done for typical lupus vulgaris? I do not hesitate to declare that here again no one procedure must be employed to the exclusion of all others. I believe especially that cauterizations and scarifications may be combined with the greatest possible advantage in the same subject; that is what I call the Mixed Method; I have used it for many years, and it has given me most successful results. This is my view of it.

"When we have to deal with a lupus at its commencment, when it is still superficial and in a vigorous subject, if it be situated on a visible part, it must be scarified, washed with sublimate, dressed with mercurial plaster, or with sublimate compresses. In this way a complete cure is rapidly obtained, without the slightest apparent cicatrix. If, however, some of the lupus nodules persist with some tenacity, it is of great advantage to touch them several times with a fine galvano-cautery point, finishing up by a few repeated scarifications to improve the scar.

"When we have to attack an ordinary lupus of somewhat old standing the opportunity of scarification and actual cauterization depends much on accessory conditions. If the subject is not in good general health, if he excites doubts as to the highly infectious nature of the affection, it is first of all to cauterization that we must turn; it must be used as long as is possible, and the scarifications only employed towards the end of the treatment to improve the cicatrix.

"If the subject, although healthy, presents an exuberant lupus, turgid, very extended, it is still useful to commence with cauterization, either with fine points or especially with the galvano-caustic grating, in order to reduce it, to weaken it, and in some measure to diminish its mass. But the cautery must not be continued too long; above all things it must not be used too deeply, and the aspect of the scars must be studied with the greatest care, for there are many patients who have a most deplorable tendency to form keloids as a consequence of too vigorous cauterizations. I think, therefore, that when the mass has been sufficiently reduced the patch ought to be subjected to several scarifications in order to improve the scar and render it more supple. The cauterizations may be repeated briefly for a short interval, if their utility be proved; if, for example, there are still a few persistent tubercles lying in the midst of healthy tissues; then the case is finished by scarification at several sittings.

"It must not be supposed that these sittings make the duration of the treatment much longer. After what I have seen, I am persuaded of the contrary. I have already written, in 1886, that when lupus is treated by scarifications, recourse must be had to cauterizations as soon as the useful effect of the scarifications passes off, and *vice versa*. I am now more than ever convinced of the truth of this precept, that by changing the method several times during the course of treatment of a lupus a much quicker cure is attained then when only one single procedure is adhered to. By the preceding combination scars are obtained incomparably nicer than those produced by the cautery alone, and in a much shorter time than if scarification alone is employed.

"In cases of lupus with isolated tubercles the galvano-cautery must be used at first, and scarification at the finish. But where the disease is situated on spots in which it is important to avoid the slightest cicatricial contraction the latter process alone must be employed.

"Lupus of the nasal fossæ must be attacked by electro-cauterization when it is possible, or better by scraping, combined with cauterizations with perchloride of iron, nitrate of silver, lactic acid, dressing of cam-

phorated naphthol, with cod-liver oil, boracic ointment, iodoform, iodol, or aristol.

"Lupus of the conjunctiva and that of the cornea will be treated by scraping and scarification. Those of the buccal and pharyngeal cavities by the electric cautery and by cauterizations with iodine, nitrate of silver, lactic acid, balsam of Peru, camphorated naphthol.

"When it is desirable to work very quickly, even at the expense of some marked scars, we strongly advise the employment of the radical surgical treatment, which is held in such great honor in certain foreign climes. The patient is chloroformed; everything is scraped out which is possible without producing too great a destruction, and in the surfaces thus prepared the deeper tubercles are sought out, and either enucleated by means of small curettes or cauterized one by one with the nitrate of silver point or the galvano-cautery. To render cicatrization more rapid powders of iodoform and aristol may be used, and it will be then seen if it is necessary to undertake another complete operation, or to confine one's self to a few cauterizations or scarifications.

"Thus we reject no method. At times we have thought well to lacerate the isolated nodules and then to cauterize them with nitrate of silver. We have already spoken of the rôle which we give to sublimate, mercurial plaster, iodoform, iodol, aristol, and subcarbonate of iron in the final dressings. We employ in like manner ointments, sublimated collodion, salicylic acid and pyrogallic acid plasters when the patients are compelled to suspend the surgical treatment, and we alternate these various preparations with red and gray mercurial plasters.

"When we have once begun to treat a lupus it must never be left alone for a single instant until a complete cure is effected.

"All this long exposition can be summed up in one word. There is no one uniform, invariable treatment of lupus which suits all patients alike. The dermatologist must have sufficient experience and medical tact to act according to circumstances, and to know how to pick out that therapeutic method which is most suitable to the particular case, and to the period of its treatment."

The Bladder in Infants.

In an interesting paper on the pelvic viscera in the infant, in the *Edinburgh Medical Journal*, October, 1890, Dr. J. W. Ballantyne says:

The bladder of the infant is even when fully distended almost entirely an abdominal organ. In the six months' fetus, a male, he found the bladder, which was distended with clear, pale-yellow urine, lay almost entirely above the pelvic brim, only a small part of the lower and posterior segment lying below that plane. In the case of a full-time male infant in which the bladder was very greatly distended with urine, a still smaller part of the lower end of the viscus lay below the pelvic brim, in the plane of which lay the vesical openings of the ureters. In the case of another full-time male infant in which the bladder was only partially filled with urine, the same relation of that viscus to the plane of the brim was found to exist. In the cases of three full-time female infants, in all of which the bladder was empty, an almost inappreciable part of the vesical cavity lay below the plane of the brim. Symington states that fully half the bladder in the infant lies within the cavity of the true pelvis and below the plane of the brim. The specimens above mentioned do not show this disposition of the bladder, but in three of the cases (two male and one female) there existed a circumstance which may serve to explain the difference in position of the bladder. This circumstance consisted in the presence of a loop of the lower end of the descending colon or of the upper end of the sigmoid flexure within the pelvic cavity, lying in the female infant in the right part of the utero-rectal pouch, and in the male infants in the recto-vesical pouch. In the other female infants the bladder was empty, and was not therefore distended at its lower end; and it must not be forgotten that in them there lay part of the *uterus* within the pelvic brim. In the case which Symington figures in his *Atlas*, in which half the bladder lay in the pelvis, the infant was a male, therefore there was no uterus to fill up the brim, the bladder also was distended, and bulged backwards towards the sacrum; and further, there was no loop of sigmoid flexure in the pelvis, the posterior vesical wall lying in contact with the rectum, and the recto-vesical pouch being empty. If the pelvis contain in addition to the rectum a twist of sigmoid flexure, and more especially if the subject be a female, it is difficult to see where room can be found within the pelvis for fully half the bladder. The ar-

rangement of sigmoid flexure to which Dr. Ballantyne alluded is, he believes, a very common one in the infant, and he finds that Jacobi in the *Archives of Pediatrics*, 1888, p. 204, makes the statement that "the sigmoid flexure is bent upon itself several times in the narrow pelvis of the infant." In the case of male infants in whom no loop of sigmoid flexure exists in the pelvis, and in which the bladder is distended, that organ may be found lying to some extent below the plane of the brim; but in the female infant, where the uterus partly fills up the brim, and in male infants, where the sigmoid twist occupies the pelvic inlet, the above-described position of the bladder must be the usual one. The bladder is, therefore, practically entirely an abdominal organ at birth.

In Dr. Ballantyne's specimens the vesical orifice of the urethra lay very nearly at the level of the upper border of the symphysis pubis, and in all only a very small part of the vesical cavity lay behind a line dropped vertically through the orifice of the urethra. The position of the upper end of the bladder varies with the state of distension of the viscus. Of three cases in which the bladder was empty, in two its upper end lay 2.3 ctms. above the symphysis pubis, and in the other case (in which the infant was frozen in the genu-pectoral position) it lay 3 ctms. above the level of the symphysis. In one case in which the bladder contained a little urine, its upper end was 2.5 ctms. above the symphysis; and in another case in which the bladder was enormously distended, its upper margin was found 2 mms. above the umbilicus (4.5 ctms. above the symphysis). It is probable that the empty bladder in the infant reaches nearly half way to the umbilicus.

In the infant the anterior vesical wall is in close contact with the anterior abdominal wall, and there is no intervening pouch of peritoneum. The reflection of the peritoneum from the anterior abdominal wall on to the posterior bladder wall usually takes place a little below the level of the umbilicus, and from 2 to 3 ctms. above the upper border of the symphysis pubis. In one case in which the bladder was over-distended, Dr. Ballantyne found that the peritoneum passed to the posterior surface of the bladder about the level of the umbilicus. The anterior surface of the bladder, triangular in shape, is, therefore, entirely uncovered by peritoneum, a fact of great importance to the surgeon who may be contemplating operative interference for stone. Posteriorly the peritoneum passes over the bladder wall, reaching in the male infant to a point immediately below the vesical orifice, and here coming into relation with the small prostate gland, another fact which is of great importance surgically. In the female infant the peritoneum does not descend so low posteriorly, for its point of reflection on to the anterior uterine wall lies above the level of the internal urethral orifice. In the infant the posterior relations of the bladder are less constant than are its anterior relations. In one male infant the bladder was related posteriorly to a loop of sigmoid flexure, and to the commencement of the rectum; in another the anterior surface of the cæcum was in relation with the posterior vesical wall, but in this case the cæcum lay mesially, and was therefore abnormal in position; in a male fetus of six months the bladder was related posteriorly to the rectum and to some coils of small intestine; and in yet another premature infant with dropsy, the posterior bladder was in contact with ascitic fluid which lay in the recto-vesical pouch of peritoneum. In the female infants the bladder lay in close relationship with the uterus posteriorly, but in one case there intervened a loop or two of small intestine, which lay in the utero-vesical pouch of peritoneum, and in this case also the right Fallopian tube lay behind and a little to the right side of the bladder, being also in the utero-vesical pouch. The hypogastric arteries run laterally to the bladder, converging towards the umbilicus.

The badder is relatively small in infants, and this fact is at least one of the causes of the frequency of micturition in infants and young children. When empty the cavity of the organ measures from 2 to 2.5 ctms. in length; but that the bladder can in exceptional circumstances be greatly distended with urine is proved by one of my cases in which its upper wall reached to a point 1 or 2 millimeters above the umbilicus. It is rare for the bladder to contain more than 1 drachm or 1½ drachms of urine at a time at birth.

Menstruation and Pregnancy after Removal of Both Ovaries.

Mr. J. Anderson Robertson, of Glasgow, reports a curious case in the *British Medical Journal*, September 27, 1890. He says that on May 4, 1888, a woman 23 years old was

brought to him. She had begun to menstruate at 13½, and was regular until three years and a half ago, when she began to be irregular. From this time the quantity became less and less, and the length of time between the periods became greater until September 14, 1887, since which date she had not menstruated. The pain during these three years and a half had continuously increased in strength and duration until now, when, she said, "I am never free from it." It extended from both ovarian regions round to the top of the sacrum, and was always worst in the left ovarian region. For some time past the patient has been "spitting blood every day;" at times merely a trace, but occasionally as much as "three tablespoonfuls" of bright red blood. She had constant leucorrhœa; bowels loose; micturition normal. The patient was a warehouse girl, and had to support a younger brother and sister; but latterly had not been able to work regularly. She was pale and ill-looking and very thin.

On examination Mr. Robertson found both ovaries enlarged and very tender, and recommended immediate removal of both ovaries, as the woman had already undergone a long course of treatment, in spite of which she had been rapidly getting worse. As some of patient's friends objected to surgical interference, medicinal treatment was again tried, and other advice sought and acted upon.

In January, 1889, patient came back, saying that she was quite unfit for work, and that she would rather die than live in such constant pain and misery. Her friends were now willing to have anything necessary done, and agreed as to the utter futility of further treatment by medicines.

On January 26 Mr. Robertson removed both ovaries. The left ovary was much enlarged, and was cystic. The right ovary was also considerably enlarged, with the capsule much thickened, affording evidence of long-continued ovaritis.

The patient made an uninterrupted recovery. Her temperature never rose above normal, and her pulse was only once above 80, namely, on the evening of the day after operation, when it reached 90. She rapidly improved in health and appearance; the pain entirely ceased, as did also the "spitting up" of blood; and she soon got plump and well looking.

On April 25 she began to menstruate (four days, quantity moderate, no pain). Normal and painless menstruation for a like period again took place in May, and continued regularly until October. In June the woman married, and in September she was looking strong and well, and feeling, as she said, "better than I have been for years; indeed, I am quite well and happy." She ceased menstruating on October 25; and on August 13, 1890, was confined. Dr. Kennedy, who attended her, said that the child (a male) was twenty-four inches long and weighed nearly 10 pounds. The labor—a difficult and protracted one—had to be terminated by the aid of forceps, and the child, unfortunately, was still-born. The mother did well.

Mr. Robertson says that from this very interesting case we may learn several lessons. Amongst these are:

1. The truth of Mr. Lawson Tait's teaching regarding the starting point of menstruation, namely, that the ovaries are not causative of it. In fact, in this case the presence of the diseased ovaries prevented it, and when they were removed normal menstruation followed.

2. The possibility of vicarious menstruation. The woman had brought up blood daily for months, but this ceased after removal of the ovaries, that is, when normal menstruation became possible, and it has not recurred.

3. The proof that removal of both ovaries does not necessarily render a woman sterile. Mr. Robertson adds that he was not aware of leaving any ovarian tissue. His aim was to extirpate the ovaries thoroughly and he thought he had done so. He suspects, however, that a small portion of healthy ovarian tissue had reached up to or beyond the hilus of the right ovary, and that this may have taken on regular ovarian functions. This, of course, is merely conjecture.

4. That in performing double oöphorectomy, excepting in cases of uterine fibroid, any apparently healthy portion may perhaps be left.

Surgery or Electricity in Gynecology.

Dr. Anna M. Fullerton, in concluding a paper published in the *Annals of Gynecology*, November, 1890, says that the conclusions suggested to her mind, after several years' work in the Woman's Hospital of Philadelphia, where a very large gynecological prac-

tice affords especial facilities for the study and treatment of the class of cases referred to in this article, are as follows:

First. Temporary conditions of acute pelvic inflammation, due to non-septic causes, are quick, as a rule, to respond to the ordinary palliative measures for allaying inflammation, such as the use of salines, rest in bed, etc. If properly treated, they are likely to get well without leaving any permanent lesion behind them.

Second. For the treatment of pelvic disease, the use of electricity, even in skilled hands, has proved uncertain in its results, and is fraught with possibilities so dangerous as to preclude its use as a therapeutic agent in the manner at present advocated.

Third. When the history of a case, and careful and intelligent examination prove a pelvic malady to be of long standing, and a source of persistent ill health, it is poor practice to waste time in prolonged palliative treatment when an exploratory incision can clear up the obscurity and prepare the way, at least, for intelligent management.

Fourth. In acute cases, where masses are found in the pelvis, and the accompanying history and symptoms point to the probability of the existence of conditions which delay may render dangerous, there should be early and prompt resort to operation.

Fifth. For the attainment of satisfactory results from such operations the skilled workman is required; therefore their performance should be delegated to the few whom natural gifts, training and surroundings enable to attain a high degree of excellence in abdominal and pelvic surgery.

Sixth. All gynecologists should not consider it their duty to attempt this work, which constitutes a distinct and comprehensive branch of surgical science.

Seventh. All physicians should be more thoroughly trained to appreciate the existence of conditions demanding the care of a specialist, and should be more disinterested in referring such early to the proper sources for help.

As regards methods, asepsis, Dr. Fullerton believes, is to be preferred to antisepsis in abdominal surgery. The little details, which vary with each operator, owe their comparative value to the efficiency with which they enable this principle of asepsis to be observed, and with which they expedite the thorough and rapid execution of an operation.

Strictly Milk Diet in Scurvy.

M. M. Tchelzoff, in the *Bolnitchnaya Gazeta Botkina*, February 21, 1890, recommends an absolute milk diet in scurvy. This year during the epidemic of scurvy in Russia, 148 patients were admitted to the hospitals, of which 30 were subjected to absolute milk diet. The 30 cases treated by the author were extremely severe ones, presenting œdema of the legs and especially of those limbs that were more subjected to exercise.

For the sake of experiment, some of the selected cases were put in the beginning on a mixed anti-scorbutic and milk diet, from four to five glassfuls of milk being given daily. The improvement in these cases was very slow. An absolute milk diet was then substituted, beginning with from four to five glassfuls of milk and increasing the quantity of milk from one-half to one glassful a day, no medicine being administered. The author's conclusions are:

1. An absolute milk diet aborts the scorbutic process in any period of its course.

2. With the above method of treatment there is no recurrence.

3. With the above method, convalescence is established much quicker than with the ordinary anti-scorbutic treatment. Thus, out of twenty-eight cases, nineteen recovered in eight days. On an average, five cases recovered in two weeks, and four cases recovered in three weeks.

4. The addition to the milk of the smallest amount of any other article of diet protracts the recovery.

A Fasting Heroine who Succumbed.

The *Weekly Medical Review*, quoting the *Hospital Gazette*, asserts that Zelie Bourrion, the fasting girl of Bourdeilles, in the department of the Dordogne, who endeavored to emulate the feats of Tanner, Succi and Jacques, has recently died at her home. Her constitution was completely shattered after her fast of thirty-three days. When she returned to her cottage she tried to eat a little, but her stomach was unable to bear the food, and she succumbed in a few days. Her fate will serve as a warning to any persons of her sex and class who may have been tempted by the notoriety which she obtained by her fast to follow in her footsteps.

THE

MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

THE MODERN VIEW OF DISEASES OF THE UTERUS.

Modern pathology of the diseases of women, as built upon abdominal surgery and upon post-mortem work, has wrought a revolution in our conception of what have been called diseases of the uterus. This is especially true of diseases of the uterus when complicated by pelvic inflammation. When such pelvic inflammation was considered to be cellulitis, caused by and kept up by disease of the uterus, and only to be cured by removing the supposed causative disease, uterine disease occupied a pre-eminent place in the field of pelvic disease. But now it is known that cellulitis is a rare condition, and that what was formerly regarded as cellulitis by the clinician, is really inflammatory disease of the uterine appendages. It is undoubtedly true that endometritis precedes salpingitis; but it is not true that the endometritis or other uterine disease keeps up the salpingitis. On the contrary, the salpingitis keeps up the endometritis, either by causing pelvic congestion or through the escape of catarrhal products from the tubes into the uterus. This fact was recognized even by some of the older authorities; but it is only through the light of modern pathology that it has become perfectly plain.

The influence which these facts have upon our conception of pelvic disease, and upon their treatment, becomes apparent immediately. Under the old theory, in these cases of mixed pelvic disease, the practitioner directed his treatment to the uterus, in order to cure the uterine disease and thus remove the cause of the complicating cellulitis. This was perfectly logical; but experience has shown that the method is futile and even dangerous; and recent discoveries have brushed away the apparently logical grounds upon which the system of treatment rested.

The disappointments and the disasters resulting from the old methods of practice are now clearly explained. That the practitioner failed to cure pyo-salpinx, hemato-salpinx, hydro-salpinx, or abscess of the ovary by making applications to or doing operations upon the uterus, was the natural consequence of misdirected efforts. And attacks of peritonitis not infrequently resulted from the treatment because manipulation of the uterus loosened adhesions about the tubes and permitted the escape of septic material into the peritoneal cavity.

This great advance in knowledge must be of signal advantage in the treatment of the diseases of the uterus. The elimination of this mixed class of diseases from consideration, at once renders the indications for specific lines of treatment the more certain, and the results to be obtained the more positive.

The dangers heretofore encountered have certainly been due to operation upon mixed cases, or to inefficient antisepsis, and with proper discrimination in the diagnosis and

selection of cases for operation they can be avoided in the future.

LEPROSY IN NEW SOUTH WALES.

The *Australasian Medical Gazette*, October 15, 1890, contains some interesting Editorial comments on a proposed "Leprosy Bill" for New South Wales. After stating the proposition of the law on September 18, the *Gazette* says: "Though we are of opinion, notwithstanding the four known cases in this colony in which the disease has attacked persons of pure European descent, that there is no reason for alarm, yet we think it well that the health authorities should have legal power to isolate cases of leprosy if, in the general interest, it is found desirable. Where the surroundings and mode of life of the household in which the case is found are good, we do not think there is really urgent reason for the removal of the infected person, for all experience goes to show that under such circumstances the disease is not easily communicated. But if it should make its appearance in a household in which diet, cleanliness and the other sanitary necessities are habitually neglected, the removal of the first victim will be advisable, as probably preventing the infection of the others. Though the Board of Health has isolated at the Coast Hospital each case as discovered, it has done so without legal authority, which it will not possess until this bill becomes law. It is not advisable that any public body should, even in the public interest, be obliged to act arbitrarily and illegally as a consequence of the neglect of the Government of the day to its often repeated representations and remonstrances."

The bill of which our contemporary gives an epitome provides that persons becoming aware of the presence of leprosy in any person shall notify the authorities, and that the Governor may by proclamation direct that any suitable place be set apart as a lazaretto for the reception and medical treatment of lepers, and may make regulations for the safe custody of lepers. Upon receiving a report of a case of leprosy, the Board of Health is to cause investigation by two or more legally qualified medical practitioners, and upon being satisfied that such person is suffering from the disease may order the removal of such person to the lazaretto and detention there until released by order of the Board of Health, or isolation in such place or manner as the Board may direct. The order is to be in writing and signed by the president or secretary or any two members of the board, and may be addressed to a member of the police force or other person as the Board may consider expedient. Any person wilfully disobeying or obstructing the execution of any order of this nature, trespassing on the lazaretto or other place, or communicating or improperly interfering with any person detained therein, is to be liable to a fine.

While we fully agree with the *Australasian Medical Gazette* as to the small need for such alarm as the discovery of lepers in English-speaking countries has recently excited, we also agree with it in granting so much to popular prejudice and to a timidity on the part of the profession which may have more grounds of justification than we can see, as to approve of the Government's setting aside a place for lepers and authorizing their isolation there.

PIRACY BY MEDICAL PUBLISHERS.

In this number of the REPORTER, under the head of Notes and Comments, we publish a letter written by Dr. Wm. Murrell to the *British Medical Jonrnal*, which expresses the indignation of a number of British medical authors at the way in which their books have been, to use their expression, "pirated" by an enterprising publishing house in New York. We do this in the interest of international justice and courtesy, and in order that, as far as the REPORTER reaches, the medical public in this country may be informed of a procedure which is

likely to be regarded as a discredit to it by our brethren who read the *British Medical Journal.*

Some of the books alluded to in the list given by Dr. Murrell were long ago sent to the REPORTER for review, but no notice was taken of them, for the reason that we had good ground for suspecting that they belonged to a class of publications which is severely condemned on both sides of the Atlantic Ocean. It looks now as if there were some chance that the United States House of Representatives would before long pass the International Copyright Law which has already been passed by the Senate. This is a law for which the REPORTER has more than once expressed sympathy and approval, and when it is upon the statute books, such occurrences as are criticised in Dr. Murell's letter will be illegal in this country, as they are now, in our opinion, immoral.

We are perfectly aware that the sin of piracy is not confined to the United States, and that English publishing houses have committed quite as heinous offenses against what authors believe to be their moral rights. But the fault of our neighbors is no excuse for our faults; and it is proper for those who have an interest in morality, to endeavor to correct what is wrong in their own country, and to trust that any efforts they may make to correct wrong-doing in others will have more force if they are able to show that they themselves are not sinners in precisely the same way.

AMERICAN ACADEMY OF MEDICINE.

The American Academy of Medicine held its fourteenth annual meeting in the Hall of the College of Physicians of Philadelphia, December 3 and 4, 1890. The object of this Society is to bring into closer relations with each other medical men who are alumni of classical, scientific and medical schools, and generally to encourage efforts to secure and maintain a high standard of education among physicians in the United States.

At its last meeting discussions took place in regard to the best way of attaining the objects in view, and a few papers of purely medical or hygienic interest were read.

The REPORTER is in hearty sympathy with the purposes of the American Academy of Medicine, and for that reason rejoices that it meets periodically and stirs up the profession, very much in the manner suggested in a paper read by Dr. Gihon for Dr. Gerrish, with the title: "Tithing Men."

From our Editorial post of observation we see very well how many different agencies must labor to bring about the standard of education to which we believe the medical profession in our country ought to attain; and we wish success to every one of them—including that one which has just held its meeting in this city.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

SAUNDERS QUESTION COMPENDS No. 14. Part I. Essentials of Refraction and Diseases of the Eye. By EDWARD JACKSON, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine, etc.

Part II. Essentials of Diseases of the Nose and Throat. By E. BALDWIN GLEASON, S. B., M. D., Surgeon in Charge of the Nose, Throat and Ear Department of the Northern Dispensary of Philadelphia, etc. With 118 illustrations. Small 8vo, pp. viii, 268. Philadelphia: W. B. Saunders, 1890. Price, $1.00.

This is a very good number of the series of Question Compends issued by W. B. Saunders. The first part, by Dr. Jackson, goes over the subject of refraction and diseases of the eye with characteristic carefulness and thoroughness. It is, indeed, an admirable summary of our present knowledge of this subject. Dr. Gleason's part of the book is also well done. There are one or two points in regard to it, however, capable of improvement. One that we note, is the recommendation of the use of the compressed antiseptic tablets now manufactured from Dr. Seiler's formula, without any special directions in regard to dissolving them. Experience shows that they are by no means so easy to dissolve as one might be led to expect, and if Dr. Gleason knows some way in which they can be quickly dissolved, it might be well to bring it to the attention of those less familiar with the matter. There are also some evidences of lack of care in the writing or proof-reading of certain prescriptions, which we trust will be corrected in any succeeding edition. On the whole the book is one which we can recommend as both convenient and useful.

NOTES AND COMMENTS.

Piratical American Publishers.

Dr. William Murrell writes to the *British Medical Journal*, October 11, as follows:

"May I beg your assistance in exposing a glaring case of publisher's piracy of which I have the misfortune to be one of the victims? In November last I published a small book on the treatment of chronic bronchitis. Soon after its appearance, I entered into an arrangement with Messrs. P. Blakiston, Son & Co., of Philadelphia, for the production of an American edition, which was issued in due course. I have just received information from them that Messrs. Wm. Wood & Co., of New York, have reprinted it, not only without my permission, but without communicating with either my English or American publishers. It would appear that there are firms in New York who appropriate the property of their trade colleagues with as little compunction as they do that of British authors.

"On looking down Messrs. Wm. Wood & Co.'s list of publications, I found the names of many of our best known medical writers, and I was curious to learn whether they had been treated with the same want of courtesy which I had experienced. I accordingly communicated with several of them, and the result has been a string of indignant letters, the writers one and all protesting strongly against the unauthorized reproduction of their works.

"Dr. Dickinson says: 'The information in your letter that Messrs. Wood have reprinted my lectures on the Tongue is new to me. They did the same for my book on *Urinary Diseases*. I have, of course, given no permission.'

"Sir Henry Thompson says: 'I had not heard of the republication of any work of mine by Messrs. Wood & Co., of New York, until you named it.'

"Mr. Bryant says: 'I had no idea my book had been republished in America. It has certainly been done without my permission.'

"Mr. Jonathan Hutchinson says: 'I certainly never gave any permission to Messrs. Wood to reprint my *Pedigree*. In a recent *Atlas of Skin Diseases* a large portion of the plates are mine, without, so far as I can find, a single word of recognition.'

"Dr. Richardson says: 'Wood & Co., of New York, not only pirated my essay entire, but did so in face of my protest.'

"I have received similar communications from Dr. George Harley, Dr. Thin, Mr. Keetley, Mr. Mansell Moullin, Dr. Simon, of Birmingham, Dr. Sinclair, of Manchester, Mr. Mark Hovell, Dr. Lloyd Tuckey, Dr. Whittle, of Brighton, and many others. The only exception is in the case of Dr. Currie, who states that he was offered 'an insignificant percentage'—which, he adds significantly, 'has not up to the present time been received.'

"I believe that there is a popular impression that Messrs. William Wood & Co. pay the authors whose works they appropriate, but I cannot find that there is any foundation for this belief. I have talked the matter over with a good many of my American friends, and they are naturally indignant at the manner in which we have been treated. There is, unfortunately, no international copyright law, and we presumably have no legal redress. A constant exposure of such instances of piracy may, it is hoped, eventually ensure adherence to the first principles of commercial morality."

Congenital Ranula.

Mr. D. Edgar Flinn, F. R. C. S. I., surgeon to St. Michael's Hospital, Kingstown, Ireland, says, in the *Dublin Journal of Medical Science*, October, 1890, that in a paper read before the Moscow Medical Society, Müller states that in the Foundling Hospital at Moscow four or five cases of congenital ranula had been observed during a period of seven years in about 80,000 children; and the *London Medical Record* of December, 1877, makes mention of the fact that, up to that period, there were only two known instances of this affection on record—one published by Dubois in 1833, and a second, of more recent date, by M. Lombard. Mr. Bryant records two cases; both were, probably, he states, congenital, and came under his notice when the patients were about twenty years old. Sir W. Fergusson records one case. Ranula was formerly thought to be due to an obstruction of the salivary ducts; but recent authorities seem to favor the theory that it is caused by obstruction of one of the mucous glands that are situated beneath the tongue. But, as Fairlie Clarke says, although the term ranula is applied to large tumors sometimes

found below the tongue, they are analogous to the sebaceous tumors which are met with on the skin, and, like them, contain a thick, gritty, putty-like substance, somewhat offensive in odor. The mucous membrane beneath the tongue is, furthermore, often the seat of cystic formations, which take their origin sometimes in the ducts of the sublingual and submaxillary glands, sometimes in the areolar spaces, and, possibly, also sometimes in the bursa, between the genio-hyo-glossi muscles. To all these cystic growths, whatever may be their exact pathology, the term ranula is applied.

Mr. Flinn then described a case of ranula analogous to the sebaceous tumors found on other portions of the body. The growth was noticed on the second day after birth, and the subject was—when Mr. Flinn saw him—very nearly twenty-nine years old. On examination, at first sight, he gave the impression that he was suffering from acute glossitis. It was with great difficulty he could articulate, and it was impossible to understand what he said. The tumor very nearly filled the cavity of the mouth, and the tongue was pushed upwards and backwards, and could hardly be felt with the tip of the finger. The tumor also projected beneath the jaw into the mylo-hyoid space, and assumed an elongated shape in this situation, being about five to six inches in length. It was hidden from view by the patient's beard, and was as large as a good-sized orange. The projection into the cavity of the mouth commenced to cause inconvenience about some eight months prior to the date of his admission to the hospital, and for over a month the man had experienced difficulty in swallowing, and subsisted principally on liquid nourishment. He daily essayed to get some particles of solid food down, but it was quite an ordeal to do so, as it required a good deal of manipulation to get the food to the back of the mouth. There was a continual dribbling of saliva, and for a week previous to my seeing him he was unable to sleep or lie down in a recumbent position for fear of suffocation. On examining the tumor, fluctuation was quite evident in the mass in the mouth, but in the neck it partook more of a solid nature.

The treatment was to aspirate that portion of the mass within the mouth, when about fifteen ounces of a creamy fluid was drawn off. This gave great relief. The man could now speak more distinctly, but found it difficult to move his tongue forward. The tumor rapidly filled again in the mouth, and was aspirated a second and a third time, large quantities of a similar fluid as before being drawn off at each aspiration. The mass in the neck now became softer, and deep-seated fluctuation could be detected. It was then decided to lay open the tumor from the neck, and a deep incision gave vent to four ounces and a half of thick, brown pultaceous matter, rather offensive in odor. Mr. Flinn then scooped out the remainder of the cavity, and took away a good deal of cheesy and grit-like substance. After this the cavity suppurated, and there was a free discharge of pus for a week or so. A short time subsequently the patient left the hospital freed from the unsightly mass that had disfigured him for so many years.

In the case under notice, the patient stated that so long as he can remember he had had a swelling about the size of a small Spanish nut lying beneath the tongue, which caused him little or no inconvenience, excepting that, at some times more so than others, he had a slight difficulty in articulating plainly. The parents both said they noticed this swelling when their son was but a day or two old. It gave them very little concern, as it appeared so small and did not seem to interfere with the movements of the tongue, the child being able to suck freely and protrude the tongue. At this time it was about the size of a small pea, and remained that size for some years, then got a little larger, increasing to the size of a small nut. It remained then stationary until some fifteen months ago, when it commenced to increase rapidly in size, and interfered with the movements of the tongue. No assistance or treatment was ever sought for, as the sufferer had a dread of surgical interference; and if it were not for the fact that he went within measurable distance of both starvation and suffocation he would, probably, not have given his consent to any ameliorative measure being adopted.

Some Objections to Cocaine in Genito-Urinary Surgery.

Dr. Joseph B. Bissell, M. D., attending surgeon to the Dispensary of Bellevue Hospital, says, in a paper in the *Medical Record*, November 1, 1890, cocaine is of almost universal application in such operations as circumcisions, internal urethrotomies, meatotomies, etc., and is usually attended with

complete success as an anæsthetic. There are, however, some disadvantages following the use of the drug, and I wish to briefly relate a few of them. Since cocaine has been in use it is not uncommon to find, after an internal urethrotomy, one or two pieces of mucous membrane clinging to the urethrotome. They are usually found in the angle between the dilating-bars and the short cross-bars. In these operations the Otis urethrotome, an instrument which is very nearly perfect, is always used, and used with the utmost care. After the cutting, the bars are only closed sufficiently to admit of its withdrawal. In about one-quarter of all the cases there was found caught in the instrument one or more pieces of membrane. In some cases the portion torn out was of considerable size. In a recent operation it was over half an inch long and nearly a quarter of an inch at its widest point.

Where ether is used in the internal operation with perineal section this accident is not noticed. In order to be still more certain that the cocaine caused the trouble, I made applications of cocaine to normal urethræ, and into urethræ with large caliber strictures, as if about to perform internal urethrotomy, waited the usual time for it to absorb, and then, through the endoscope, observed the condition of the urethral wall. There was a little more difficulty than was natural in entering the proper sized tube. The mucous membrane was blue and congested, and pointed into the opening of the tube. In the pathological urethræ these appearances were most marked. This narrowing of the canal and fulness of the mucous membrane would account for the frequency with which the latter is caught and torn away by the smallest closing of the bars of the instrument. Further stricture or permanent contraction of the penis will be a very natural result of this laceration. Hemorrhage after the operation is another disadvantage of cocaine. Bleeding during the first night is more likely to occur after cocaine anæsthesia than after ether or chloroform, as can be observed in cases of external section. This hemorrhage is not of much importance in hospitals, or where a competent nurse is in charge; but when the care of the patient is left, as it often has to be, to a lay friend, it may be a very serious matter.

In circumcision cocaine rarely gives trouble during the operation. If the solution is injected too close to the line of the cut, the swelling it causes may obscure the edges and leave a ragged and irregular line of union. The extravasation of blood, which is almost unavoidable where the cocaine is injected into the subcutaneous tissue is objectionable. In some cases superficial sloughing of localized points may result from this extravasation and make the healing slow and troublesome. A very serious objection to cocaine in circumcisions is in children or in very nervous patients. The sight of the instruments, the dressings, the pain of the hypodermic punctures, and feeling and hearing the cutting and sewing up of the wound will cause severe shock in a delicate and sensitive child, and may frighten him into hysterics or even convulsions.

Chloroform is so easily given and so harmless in children under ten years, that it or ether ought to be used in preference. Idiosyncrasy may account for certain cases in which the drug, however skilfully applied, does not completely anæsthetize. Other cases occur in which the tissues, owing to pathological changes, do not absorb the solution rapidly enough, or sufficiently, in the quantity it is safe to use, to cause complete freedom from pain.

Cocaine poisoning is always possible, even with moderate quantities of the drug. Some people are much more liable to cocaine intoxication than others. One of my patients whom I circumcised for an old inflammatory induration of the foreskin, developed serious constitutional symptoms; but after waiting over half an hour I operated without any local anæsthesia whatever. The patient was a man twenty-eight years of age, and of good habits. I injected forty minims of a six-per-cent. solution. During the operation, which lasted about three-quarters of an hour, he complained of dizziness, inability to see and nausea. His pulse was 100 to 120, full and bounding. After the operation he went soundly to sleep, and, though easily awakened, he was unable to walk for several hours. He recovered completely in about six hours after the operation.

Examination for Tubercle Bacilli.

The *Druggists' Circular*, December, 1890, says that Dr. H. Kühne (*Centralblatt für Bakt. und Parasitenkunde*), after referring to the fallacies and difficulties with which the search for tubercle bacilli in sputum from phthisical patients is surrounded, describes a new method of staining the bacilli.

When it is difficult to spread out the sputum on a cover glass he uses a concentrated solution of borax, to which at least an equal quantity of sputum is added. The mixture is shaken up in a suitable vial or is worked up in a mortar, after which it is easily spread in a thin layer over the cover glass. Nummular sputa from cavities may be broken down with a watery solution of carbonate of ammonium; this has the advantage that it is partially volatilized as soon as the cover glass is heated, and what remains is broken up by the action of the acid. An equable layer on the cover glass being obtained, the albumin is coagulated by careful heating over a flame, after which the specimen is stained in Ziehl's fuchsin solution for five minutes, the color is completely removed with a 30 per cent. solution of nitric or sulphuric acid, and the specimens are washed in water and dried. In order to obtain a contrast stain, two or three drops of a concentrated solution of picric acid in anilin oil may be added to a watch glass containing pure anilin oil; a drop of this, placed on the slide before the cover glass is lowered into position, gives a sufficiently yellow contrast stain to cause the red tubercle bacilli to stand out very prominently. They may be examined with a magnifying power of from 60 to 100, and where they are in great number, as is the rule in "cavernous" sputa, they appear under still weaker magnifying power as particles of red dust on a yellow ground. To make a permanent preparation, Kühne recommends that the anilin oil be driven off by means of his hand blower and that the specimen be mounted in Canada balsam. By this method the tubercle bacilli only are stained.

Enlargement of Liver in a Child.

Eliza W. Dunbar, of Zurich, in the *Bristol Medico-Chirurgical Journal*, September, 1890, describes the case of a little girl three years old who showed such an increasing enlargement of the abdomen as to lead to medical advice being sought. The enlargement on examination she found to be entirely due to increase of size of the liver, which reached in its lowest boundary to a line drawn across the navel. Traces of rickets were present, but in a slight degree, and there was no deformity of the thorax such as would be followed by displacement of the liver. The little girl had during the short period of her existence shown always an extraordinarily large appetite, to appease which she had frequently been found eating paper in large quantities—newspaper and also card-board. According to the mother's statement, the child ate habitually largely, was unrestricted as to quantity at meal-times, and required as much as her brother who was 14 years old. Often the child procured food between meals. Latterly many dainties refused by an invalid in the house had been eaten up by the child. She was well, except for a little diarrhœa, which soon ceased when appropriate remedies were used. Also she had been seen to pant a little after running upstairs, a symptom which soon disappeared after treatment had begun.

Every organ was sound with the exception of the liver. Though it was enlarged, it was quite painless however pressed. Temperature was normal and urine contained no albumin.

Considering the history of the case, the enormous appetite and recent means of extra indulgence, the painlessness, and the healthy state of heart, lungs and kidneys, Dr. Dunbar diagnosticated accumulation of fat in the liver. The treatment consisted chiefly in restricting the diet, and after six months' time the liver was found to be of normal proportions.

Mattison Prize.

With the object of advancing scientific study and settling a now mooted question, Dr. J. B. Mattison, of Brooklyn, offers a prize of $400 for the best paper on "Opium Addiction as Related to Renal Disease," based upon these queries:

Will the habitual use of opium, in any form, produce organic renal disease?

If so, what lesion is most likely?

What is the rationale?

The contest is to be open for two years from Dec. 1, 1890, to either sex, and any school or language. The prize paper is to belong to the American Association for the Cure of Inebriety, and be published in a New York medical journal, *Brooklyn Medical Journal* and *Journal of Inebriety*. Other papers presented are to be published in some leading medical journal, as their authors may select. All papers are to be in possession of the Chairman of Award Committee, on, or before January 1, 1893.

The Committee of Award will consist of Dr. Alfred L. Loomis, Pres. N. Y. Academy of Medicine, Chairman; Drs. H. F. Formad,

Philadelphia; Ezra H. Wilson, Brooklyn; Geo. F. Shrady and Jos. H. Raymond.

Electric Light as an Analgesic.

The *Boston Medical and Surgical Journal* cites Von Stein, of Moscow, in *La France Médicale*, as reporting several cases of different painful affections which have been relieved as if by magic by the electric light. The apparatus which he uses consists of a small incandescent lamp about two inches long, with a reflector in the shape of a funnel, which is applied directly to the skin over the seat of pain. For the head and neck it is left in position for ten or fifteen seconds, but for other parts of the body it remains from one to five minutes, or until the patient complains of the heat. The author has obtained remarkable results in cases of intercostal neuralgia, rheumatic pains of the shoulder, lumbago and severe pain in other parts of the body. The number of applications for permanent relief differs much, sometimes one being all that is necessary.

NEWS.

—Dr. C. L. Miller has removed to the N. E. corner of Seventeenth and Christian streets, Philadelphia.

—Dr. Charles A. Miller, Superintendent of the Longview Asylum for the Insane, near Cincinnati, died November 21, 1890.

—Dr. J. L. Stewart, a well-known surgeon, died in Erie, Pa., on Saturday, December 6, aged 86 years. He had just returned from the Medical Congress in Berlin.

—Members of the medical staff attached to the Philadelphia Hospital and District Physicians for 1891 were chosen December 8 by the Board of Charities and Correction.

—A woman, living near East Dubuque, Illinois, is said to have given birth to a child without eyes and with no place in the head for them. The forehead extends down to the nose perfectly smooth.

—Dr. L. Webster Fox, who recently resigned the position of Ophthalmic Surgeon to the Germantown Hospital, was elected Emeritus Ophthalmic Surgeon by the Board of Managers at their December meeting.

—The election of a Professor of Materia Medica, General Therapeutics and Hygiene, lately filled by Dr. Roberts Bartholow, was, on December 8, indefinitely postponed by the Trustees of the Jefferson Medical College.

—Dr. Edward M. Hartwell, associate in Physical Training and Director of the Gymnasium at Johns Hopkins University, has resigned to accept the position of Director of Physical Training in the public schools of Boston.

—The Camden, N. J., Homœopathic Hospital, which has been open for five years, has closed its doors and its property is for sale. The reason assigned by the Managers is the difficulty of securing medical attendance at the hospital without compensation of the medical men.

—Surgeon General Baxter, who was stricken with paralysis December 1, died in Washington December 4, without having regained consciousness. The funeral took place December 6, from All Saints' Unitarian Church, and the interment took place at Arlington Cemetery. Five foot battalions, a platoon of light artillery and two troops of cavalry acted as an escort. The War Department was closed at noon on the day of the funeral.

—The American Academy of Medicine held its fourteenth annual meeting in Philadelphia, December 3 and 4, Dr. Samuel J. Jones, of Chicago, presiding. The following were elected officers of the Academy for the ensuing year: President, Dr. Theophilus Parvin, of Philadelphia; Vice-Presidents, Dr. Henry M. Hurd, of Baltimore; Dr. Alonzo Garcelon, of Maine; Dr. Robert L. Libbett, of Carlisle, Pa.; and Dr. Richard J. Dunglison, of Philadelphia; Secretary, Dr. Charles McIntire, Jr., of Easton, Pa.; Assistant Secretary, Dr. Edgar M. Green, of Easton, Pa.; Treasurer, Dr. J. Cheston Morris, of Philadelphia.

—Acting Secretary Nettleton has informed Customs officers at New York, Boston, Philadelphia, Baltimore, Norfolk, Portsmouth and Newport News of the appointment of Veterinary Inspectors at those ports by the Secretary of Agriculture, and has instructed them to hereafter refuse clearance to vessels carrying cattle or sheep until they shall have received notice from the said Veterinary Inspectors to the effect that the cattle and sheep in question have been duly inspected in accordance with the regulations of the Agricultural Department. The following is a partial list of the Veterinary Inspectors: At Boston, Dr. A. B. Rose; at New York, Dr. C. B. Michener; at Norfolk, Baltimore and at Newport News, Dr. G. C. Faville.

MEDICAL AND SURGICAL REPORTER

No. 1764. PHILADELPHIA, DECEMBER 20, 1890. VOL. LXIII.—No. 25.

CLINICAL LECTURES.

CHOREA OF ADULTS.—VIOLENT LEAD POISONING—PNEUMONIA OF DRUNKARDS.[1]

BY J. M. DA COSTA, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL, ETC., ETC.

Gentlemen: The first case which I show you to-day is one which is both etiologically and therapeutically of very considerable interest. It is a case the history of which is as follows. The patient is a colored man, thirty-nine years old, a barber by occupation. His father died of heart disease; his mother and sister were affected with chorea, developed after they had reached adult age. His mother's chorea lasted for twenty years, and she eventually died from the effects of the disease, as did also his sister. The patient's attack came on after his thirtieth year. His case belongs, therefore, to the group of adult choreas. As far as we can ascertain there is no history of rheumatism in his family, nor has he ever had rheumatism. The patient has always been healthy until seven years ago, when he began to have choreic attacks without any appreciable cause. Without any history of injury, fright or rheumatism, he gradually became affected with these violent choreic movements, which have been increasing in intensity, and on his admission to the hospital were so violent that he was confined to his bed, where he remained until the first of this month. These movements ceased at night, and sleep was undisturbed. In this respect his case resembles that of his mother and of his sister.

Now, let us examine the patient's heart to see if his disease is in any way connected with a cardiac lesion. The movements are so violent, the chest even constantly moving, that it is very difficult to analyze the cardiac sounds with accuracy; but by taking time, I am able to tell positively that there is no cardiac disease here. The first sound is a little heavier than normal, and the second is distinct, but there is no murmur present. The urine is normal. The temperature has been rather sub-normal, never exceeding 98°, and at one time falling to 97°. He has no headache; and no cerebral symptoms beyond an occasional slight giddiness. His tongue is clean, and there are no digestive symptoms. The pupils are of moderate size and react to light.

This patient is a striking illustration of that comparatively rare disease, hereditary chorea of adults, an affection which is a very much more severe disease than is the chorea of children. The fact that it usually does not occur until adult age, and that it appears without any cause and as the result of an hereditary influence, gives rise to an unfavorable prognosis, one far less favorable than in the ordinary chorea of childhood and adolescence. Also we do not see in these cases the relapses or ameliorations which occur in ordinary chorea. Here the disease is continuous. The patient is never free from the disease. There are, it is true, exacerbations in this man's condition, occurring about once a month without apparent cause. We may look upon this disorder as one of those strange neurotic affections which may be likened to other hereditary nervous diseases, such as hereditary epilepsy, hereditary ataxia or Friedreich's disease, which also occur in family groups. Most likely the hereditary weakness lies in some of the nervous motor centres in the brain, but this is not positively known.

Now, as regards treatment. This man has improved under the use of Fowler's solution, nine drops daily. But when I came on duty, I placed him on what has done him yet more good, namely, the one two-hundreth of a grain of the hydrobromate of hyoscin, three times a day. This is a de-

[1] Delivered at the Pennsylvania Hospital.

cided dose. Hyoscin is a very active agent, and I have seen toxic effects arising from the one two-hundreth of a grain. It benefited the patient much, and it is therefore incumbent upon us to continue the treatment. We will give him larger doses now, the one one-hundred-and-fiftieth of a grain three times a day. If this should not succeed, I shall try hyoscyamin, from which also I have seen excellent results. It is a kindred remedy to hyoscin, and both produce excellent results in instances of long-standing chorea. Should this fail, remembering a very violent case of long-standing chorea in a young adult in the ward, I should place the patient on belladonna, pushed until its toxic effects are produced, or chloral, keeping the patient under its influence, even half drowsy, all of the time. Considering the obstinate character of these hereditary choreas, I fear we shall have an extended opportunity to test these drugs. Along with them, we shall give a nourishing diet, and insist on his having an out-door life.

Lead Poisoning.

Here is a case of violent lead poisoning, in a man twenty-nine years old. He has been working in lead works during the last four months to within four days of his admission, on the third of this month. About a month ago he noticed a sweetish taste in his mouth, and about two weeks ago a blue line on his gums. At times he has had pain in his back, legs, arms and abdomen, and for the last ten days he has had wrist-drop. It is truly a classical case of lead poisoning. During the last seven days the pain in his abdomen has become very intense. It is referred to the umbilicus, and is twisting in character. His bowels are very constipated, his abdomen is scaphoid and sensitive to the touch. The urine is non-albuminous. His tongue is heavily furred, and salivation is profuse. He was placed on ten grains of iodide of potassium three times a day, and sulphate of magnesia to keep his bowels open. On the fifth of November he began to vomit, and his bowels on that day were copiously moved. On the eighth, he suffered intense pain and was given an hypodermic of morphine and atropine to control it, and, for his sick stomach and colic, tincture of cannabis indica, ten drops three times a day. A quarter-drop dose of croton oil was given four times daily, to move his bowels; but these not acting, we resorted to magnesia sulphate, one drachm in solution with two drops of dilute sulphuric acid and ginger. This proved more effective. Since then he has continued to improve. His bowels are in a much better condition, and during the last few days he has been placed upon the sulphate of strychnine, the one-fiftieth of a grain three times a day. His temperature has been slightly elevated, but not materially so. To-day he still presents evidences of lead cachexia in a marked manner, and there is still some wrist-drop. He is not able to move his extensors. There is also slight wasting of the muscles of the thumb, along with double wrist-drop of a moderate degree. There is a very marked blue line around the teeth of both the upper and lower jaws, but more so upon the lower. The tongue is now clean. There is still some sensitiveness of the abdomen, though to a less degree than on admission, and on examining his heart I note a systolic murmur, which I perceive towards the apex, and which is soft and short. He has no headache now, nor any attacks of giddiness, and his sleep is not disturbed. There is no anæsthesia nor any signs of altered æsthesia. His knee and elbow reflexes are gone.

This, gentlemen, is a very marked case of lead poisoning. The double wrist-drop, the anemia, the blue line upon the gums, the abdominal pain, tenderness, and the constipation, all make out the case, quite irrespective of the man's occupation. There are two or three points in the case which we will especially consider. In the first place, let me call your attention to the sensitiveness of the abdomen, which existed here, and yet exists to a diminished degree. This is one of the peculiar signs of lead poisoning. It is not connected with inflammation, and is most likly due to paralysis of the bowels with over-distension. It is rather relieved by deep pressure, as a rule, and is not associated with any rise of temperature; hence we cannot suppose it to be associated with peritonitis. It is a neurotic condition. There is nothing peculiar as regards the wrist-drop, except that it is double and not so marked as we might suppose from the gravity of the other symptoms. Thirdly, the absence of knee-jerk is common in these cases.

But, now, what is the meaning of this murmur which we detect in the heart? There are two suppositions which are tenable; and we must watch the case longer to see which is the more likely. It might be

an anemic murmur, or it may be the murmur of a latent mitral endocarditis—a very common result of lead poisoning. Indeed, I have been struck with the frequency with which valvular disease originates in an impregnation of the system with lead. Hence I am very suspicious in all cases of cardiac murmur associated with lead poisoning. The murmur here I think is organic.

I ground my belief that the murmur is not anemic on the fact that it is heard at the apex of the heart and is limited there. When a murmur is so limited, and does not extend to the base at all, I think we may generally correctly infer that it belongs to an organic disease of the heart, rather than to an anemic condition of the system.

Let us look at the prognosis and therapeutics of this case. The prognosis is favorable. The man will recover. What is his treatment to be? He had been placed on the iodide of potassium, which is the best eliminant of all metallic substances and especially of lead. But this had to be suspended because of the condition of the stomach. We then resorted to sulphuric acid and magnesia, the latter to keep the bowels open and the former to make an insoluble salt of lead. I would call your attention here to the value of giving small doses of sulphate of magnesia, with small doses of sulphuric acid. This is an excellent plan of treatment for obstinate constipation where there is paralysis of the bowels. Trousseau gave from ten to twenty grains of magnesia at short intervals. In this case we gave one drachm every hour until one ounce was taken, and to this treatment we added strychnine. Now, shall we continue this, or revert to the iodide of potassium? I admit, I should like to revert to the iodide. The tongue is cleaner and the stomach better, and I feel that with ten grains of potassium iodide three times a day, we can do more for the lead cachexia and more to relieve the latent heart trouble. We will, therefore, stop the sulphate of magnesia and morphia treatment, continuing the strychnine.

Delirium in Pneumonia.

I have next to show you a case in which the discussion will be rather a discussion of one of the chief symptoms than of anything else, as the case is obvious enough as regards its other features. This man is 35 years old, and was admitted on the fifth of November. He was delirious on admission and very little history could be obtained, except that he was a hard drinker. He had been in the hospital before for delirium tremens, and just before his admission this time he had been drinking very hard. About two weeks ago he was taken ill, and he was thought to have typhoid fever. Stimulants were withdrawn and he was put on milk. On admission his temperature was 102⅕°, his pulse 102, his respiration 36. There was marked trembling of the tongue, which was heavily coated. His hand was tremulous and his pulse full, bounding and not dicrotic. His abdomen was tympanitic. There were no rose-colored spots. He was put on liquid diet and one-half ounce of whiskey every fourth hour. During the night he had hallucinations and illusions, but rested fairly well. On the eighth, pneumonia of the left base became manifest, and in the axilla fine crackling râles were heard at the end of inspiration. His cough was spasmodic, the sputum being rusty and small in amount, and he expectorated over everything.

Now this man has been violently delirious, and is still so, though he has improved considerably during the last forty-eight hours. His pulse during the last few days has been about 100, and has lost the fulness which it had on admission. The temperature, which was at one time high, rising even to 104°, has declined remarkably, and now ranges between 99° and 100°, resembling a crisis. Occurring simultaneously with the decline there has been a marked change in the pulmonary symptoms. There is less dulness and the râles are larger, more bronchial and less vesicular, while respiration is less frequent. There is no heart murmur, and the first sound is of only moderate strength. This man has undoubtedly a pneumonia of the left lung, but at the same time he has had delirium tremens. Whether the one came first or the other, our history does not allow us to state. The pneumonia of intemperate people is peculiar. Delirium in itself rarely occurs in pneumonia except towards the end, and even then the mind is often clear when the other symptoms are unfavorable. Early delirium in a case of pneumonia, in nine cases out of ten, suggests intemperance. I think it is very likely that here the pneumonia was really the beginning of the acute disease, after which the delirium developed. The drop in temperature bespeaks convalescence; and in this respect the pneumonia is not different from other pneumonias.

Can we get along in these cases without stimulants? My opinion is that, if we want to save the patient, we must give a certain amount of stimulus. We endeavored to do without it here for several days, but had to put the man back on it, one-half ounce every four hours; and he is improving since. By using certain remedies we may get on with less stimulants, and in my experience the best among these is cocaine, one-sixth of a grain every four hours, which gives good results. We shall continue the stimulus and cocaine in this case for a day or two, and then gradually diminish the dose. Then we shall put him on twelve grains of quinine in the day. His food is concentrated broths; and this shall also be continued.

INJURY OF THE ORBIT AND ANTRUM.—FRACTURE OF THE OUTER TABLE OF THE SKULL, WITH PENETRATION OF THE FRONTAL SINUS.—STAB OF THE CHEST.—INGROWING TOE-NAIL.[1]

BY JOHN H. PACKARD, M. D.,

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Injury of the Orbit and Antrum.

Gentlemen: The first case I shall bring before you this morning, is one of injury of the head. The patient, a man sixty years old, was thrown out of a wagon a day or two ago, falling upon his head and face. You will see at once that his right eye is more prominent than his left; and you will note a peculiar thick, gummy, yellow discharge from the right nostril. The man's consciousness since his admission has been complete; although he is said to have been stunned by his fall, and he has lain perfectly quiet in bed except when spoken to. But he is able to answer questions intelligently; and it is obvious that there is no serious damage to the brain. His temperature has not risen above 100°. His right eyeball moves under his control, but not so freely or so easily as the left does. Vision in the right eye is good, but not as perfect as in the left. The conjunctiva is puffy from effusion of blood into the areolar tissue beneath it. There is much bruising of the skin around the orbit, and it is clear that, as he struck the ground, there was a projection forward of the eyeball and rupture of a vein behind it, within the orbit; hemorrhage of course ensued, and the mass of blood poured out occupies the space behind the eyeball, pressing it forward, stretching the optic nerve and hampering the action of the muscles. This clot will be gradually absorbed and the eye will return to its place.

Now, as to the discharge from the nostril. You will note that the swelling of the cheek is marked, and there is much tenderness on pressure, which also increases the flow. This liquid is merely the normal secretion of the antrum, increased by injury of the bony wall. Patients with coryza often suffer from a sense of great tension across the upper jaw, which is relieved upon the flow of just such a yellow liquid. Sometimes the discharge becomes purulent. It is not so now in this case; but possibly it will be so later. A number of cases have been reported, in which a free flow of thin, clear yellow secretion from the nostril, without apparent cause, has been found to be the initial symptom of malignant disease within the cavity of the antrum.

In this case we shall simply keep the man at rest in bed, with cold antiseptic lotions to the injured parts.

Fracture of the Skull.

The next case is also one of injury to the head. This man was admitted yesterday, having been struck in the left temple, just back of the orbit, with a piece of wood thrown off by a circular saw at which he was working. He was able to walk, with some assistance, to the hospital. On his arrival, the wound, which was bleeding freely, was examined, and found to be about one inch in length. Within it was a bit of wood not much larger than a marrow-fat pea; and it seems almost impossible that this could have been the only piece which flew off from the saw and inflicted so much injury. For, on further investigation, the bone was found to be shattered, and, after enlarging the wound in the skin, I removed a number of loose splinters, involving part of the roof of the orbit. Yet the brain case itself was not damaged, the fracture being far forward, in the portion where the orbital and cranial layers are separated by wide-meshed cancellous tissue: the outer extremity of the frontal sinus. Making this wound thoroughly

[1] Delivered at the Pennsylvania Hospital.

aseptic, we were able to predict its speedy closure without serious trouble arising. A few years ago the established rule was not to explore wounds of the head, but to wait until symptoms of grave mischief ensued. Often and often, upon the appearance of such symptoms, operative interference was resorted to, but in vain; because it was too late. Now we pursue a more truly expectant plan; we forestall the danger before it actually appears. We cannot always do this. A boy was brought into my ward two years ago, who, while operating a nail-making machine, was struck in the head with a small piece of steel. The skull was punctured at the upper and anterior part of the left side; a probe, passed through the opening, met with no resistance, and seemed to traverse the brain almost entirely across. Yet the boy had no symptoms whatever. No operation seemed to be indicated on either side of the head. He was kept in the house for ten days and was then discharged, apparently well; but in a few weeks he was readmitted with a cerebral abscess, for which trephining was performed, but without saving his life. At the autopsy a foreign body was carefully searched for, but none was found.

Stab-wound of the Chest.

The next case is that of a young colored man who was brought in last night with a stab in the side of the chest. I have just now seen him for the first time. The knife had evidently penetrated the pleura; but it was not certain whether the lung was wounded or not. Dr. Gummey very properly introduced a rubber drainage-tube; but it does not seem to be doing any good. Under antiseptic precautions, and with sterilized hands, I remove it, and you see that it was blocked up by this clot of blood, partly within it and partly around it. There is no evidence of any damage to the lung. The tube is now cleansed and re-inserted, and a fresh antiseptic dressing is applied. Whatever secretions may form in the wounded pleura will escape through the tube; and should there be occasion, the cavity may be washed out with carbolized water, with dilute peroxide of hydrogen, or with plain boiled water, as circumstances may require. If there is no effusion within the pleura, the tube will be withdrawn in a day or two and the wound will heal.

You will remember my showing you a week ago a boy about ten years old, who had been stabbed in the back, and in whom the lung was wounded. Dr. Penrose saw him in my absence, and introduced two small rubber tubes, one into the lung-wound, the other into the pleural cavity. Antiseptic dressings were used, and no suppuration ensued. On the seventh day the tubes were removed, and the wounds healed kindly.

Some of you may have heard that during the late war it was suggested by Dr. Howard, a man of some prominence as an army surgeon, that gun-shot wounds of the chest should be treated by hermetically sealing them with collodion or other materials. Cases so dealt with did occasionally turn out well; but there was no certainty about it, and the method failed to find any general favor. Had the wounds been first rendered aseptic, it may be that the verdict would have been different.

Ingrowing Nail.

The next patient, a boy fifteen years old, has an ingrowing toe-nail—a small affair, but a very painful one. Cases of this kind will not infrequently present themselves to you, but rarely in so young a person. I cannot now dwell upon the causes of this affection; but will only say that, while sometimes due to the wearing of narrow-toed shoes, it is met with also where such a condition has not existed. I believe, however, that it never has been seen in persons who habitually go barefooted. There are two elements in this disorder, or rather two lesions: a swollen and inflamed, usually ulcerated, state of the fold of skin at the edge of the nail, and a ragged and hardened margin to the nail itself. Sometimes the former exists alone, at an early stage of the trouble; but later this portion of the bed of the nail becomes inflamed, and the nail itself grows unhealthily. I always look for, and almost always find, at the deepest part of the nail-bed, back under the skin, an abscess-cavity containing a piece of dead nail-substance. Sometimes it is necessary to etherize the patient and to cut away the affected nail in its whole length and about one-third of its width, along with the underlying nail-bed. But I prefer, when it can be done, as in this case, to take a small pair of scissors, with one blunt or rounded end, and to pass this under the ragged free edge of the nail, carefully paring it away. You see I do this without causing the boy much pain. I go away back under the skin. I have now opened the cavity of which I

spoke, and here is the bit of necrosed nail-substance which was lying in it.

There is now only a smooth edge of nail. I apply a solid stick of nitrate of silver to the swollen and irritated skin, not as an alterative, but as an astringent. Now the unhealthy surface is made aseptic with sublimate solution, and dusted with iodoform, and a gauze dressing is applied.

It is not always possible—indeed it seldom is—to carry out this procedure at one sitting. Usually the patient complains of pain when the point of the scissors has been carried back some little distance; and sometimes the parts become obscured by a free flow of blood. But, by carefully renewing the attempt at intervals of two or three days, I have been able in some unpromising cases to effect my purpose, and eventually to give complete relief. Sometimes, in the class of patients met with in hospital practice, it is better to resort at once to the more heroic plan, in order to enable them to return sooner to their daily work.

COMMUNICATIONS.

MYALGIA.[1]

BY MABEL W. MOON, M. D.,
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Practitioners frequently use the term "Myalgia" as synonymous with "Muscular Rheumatism," and in many of the text-books the two words are used interchangeably, while in a few works myalgia is classed with the neuralgias. Pepper says that these affections: rheumatism, myalgia, and neuralgia, have very little in common; pain on motion being the only symptom present in them all. It is true that tenderness upon pressure exists in all; but in neuralgia it is localized over a nerve trunk or branch, while in myalgia it is generalized, extending over the whole muscle or group of muscles affected. In true rheumatism the tenderness is around the joint, and there is always pyrexia, acid sweat, highly acid urine and a decided tendency to heart complications; all of which are absent in myalgia. In the majority of instances myalgia is simply a cry for food from muscles poorly nourished and overworked. It is really not a disease, it seems to me, nor even a symptom of a disease—it is a very local affection, confining itself to a single muscle or at times to groups of them, the position and name being designated by the seat of the trouble. Thus cephalalgia or cepalodynia is a soreness of the scalp muscles, felt upon moving them, and aggravated by pressure. In not a few cases the pain is sharp when there is the slightest movement, and a dull heavy ache when at rest. Torticollis is myalgia affecting the neck muscles on the anterior and lateral aspect. This can be easily diagnosticated from the torticollis, or wry-neck, resulting from caries of the vertebræ, or due to a neuritis, as this latter is a disease of slow development, of marked chronic course, and has great tenderness over the spine. The term "cervicodynia" is sometimes applied to a myalgic affection of the posterior neck muscles. Pleurodynia, where the seat of pain is in the pectoral and intercostal muscles, may be mistaken for intercostal neuralgia upon superficial examination; but if no pain be elicited upon pressure on the three diagnostic points—at the sternum, over the spine just at the exit of the nerves, and midway between, we may be positive that there is no neuralgia present. Lumbago affecting the muscles of the back in the lumbar region, together with torticollis and pleurodynia, are the most common forms of myalgia, and in some cases are very obstinate and oft recurring. In such cases autopsies show negative muscle changes and no fixed lesion. Muscular degeneration has been found in a few instances.

From clinical observation it appears that those persons who have inherited a gouty diathesis are no more liable to suffer from myalgia than are those free from this taint. In some cases, it must be acknowledged, there exist an unknown idiosyncrasy which seems to render one individual more vulnerable to an attack than another; though the reason for this is unexplained. The most fruitful cause of myalgia is overwork: either violent exertion of muscles unused to it, or ordinary effort much prolonged. Exposure to cold, damp cold, when the person is overheated and fatigued, may precipitate an attack. Malnutrition, either of single muscles or of many, is always a forerunner of myalgia; hence persons leading sedentary lives often complain of it; loss of muscle tone being induced by lack of exercise. The "growing pains" found in rapidly-growing children are undoubtedly of a my-

[1] Read before the Montgomery County Medical Society.

algic nature. In all cases of myalgia there will be found to exist a demand for work which is not equaled by the food supply.

The onset of myalgia is generally sudden; the pain is sharp and cramp-like when the affected part is moved, comparative ease being obtained by keeping the muscles in a relaxed condition; though even then, in many patients, there may still be a feeling as if they had been pounded. The muscles are slightly full and very tender, showing some slight evidences of inflammation; but there is no fever, redness, heat or urinary changes, and the appetite remains unimpaired if the attack is of short duration.

The prognosis of myalgia is good, as far as recovery goes. The attack may last a few hours, days or weeks, and its aptitude for recurring is very marked, if the patient is subjected to the same conditions which brought on a first seizure. It has been found to take on a chronic form also.

In neurasthenic people, cod-liver oil seems to be somewhat of a prophylactic.

A brisk purge, followed by a dose of salts or citrate of magnesia is a good beginning treatment. The part should be kept at rest as much as possible and warm. In torticollis, the neck may be wrapped in hot flannel and bathed with some stimulating or anodyne liniment. The interrupted Faradic current often proves of great benefit. Massage, given by a skilled manipulator—not merely rubbing, but grasping the muscles separately and kneading them between the fingers is also useful. In omalgia, where the deltoid muscle is the seat of pain, massage seems to do but little good. The galvanic current, of a strength of from 150 to 300 milliampères, and stronger if your patient can bear it, is often of service. It should always be given in strength sufficient to cause the skin to redden, using small electrodes very well moistened, and applying them to the motor points of the muscle. One application, of fifteen or twenty minutes, following this by wrapping the shoulder in cotton, will in many cases effect a cure.

Phenacetine and salol, two and one-half grains each, in capsule, repeated every three hours, have given great satisfaction in cephalalgia. These drugs are both analgesic, and seem to answer admirably in such cases.

Pleurodynia is one of the obstinate forms of myalgia. It occurs more frequently upon the left side. Occasionally it is bilateral. The patient leans towards the affected side, and takes very shallow breaths, and holds herself—I say herself advisedly, as pleurodynia occurs much more frequently in females than in males—as every movement, cough or sneeze causes a lancinating pain, forcing cries from the sufferer. One must, of course, differentiate between pleurodynia and pleuritis or intercostal neuralgia; and it is not a difficult task in the generality of cases, to make a clear and positive diagnosis. In persons of a very nervous temperament the temperature will sometimes rise in pleurodynia, but it will quickly subside if the chest be strapped with overlapping bands of adhesive plaster, running obliquely forwards and downwards from the spinal column to the sternum. In mild cases friction with the hand moistened with a lotion consisting of one part each of laudanum and chloroform and two parts of alcohol, will answer without the adhesive strips.

When the pain of myalgia is in the limbs or gluteal muscles, a steam bath, with a good sweat induced by a Dover's powder and a hot drink, will prove beneficial. In every case a purgative, as has been stated, will be a good starting point for treatment.

Lumbago is exasperating to the patient, and in not a few cases is quite as trying to the medical attendant. The seizure is sudden. A person stooping to pick up something finds himself unable to straighten up, and when obliged to move, walks with his body bent at the hips. This is the most severe form that myalgia takes; and the patient must be kept quiet in the position which affords the most relief. Hot applications, dry or wet, are very grateful and soothing in these cases; but narcotics will often have to be resorted to. Sometimes inserting the hypodermic needle will afford a cure; and at times acupuncture acts like magic. In very stubborn cases the actual cautery may be used. Objection will doubtless be made to this by the patient, and it would be wise to broach the subject gently. Ice and salt should be applied before using the cautery, and the pain will be materially lessened. The eschar should be dressed with carbolized oil, which is both antiseptic and pain-relieving. The use of morphia is absolutely necessary at times, as the patient will weaken from loss of appetite and sleep in prolonged cases, if pain is not quieted. The ordinary hypnotics, such as sulfonal, etc., will not answer in myalgia, as a rule, though they may be tried.

Flannel should always be worn from neck

to ankles by persons subject to such attacks. It not only prevents chilling by absorbing the perspiration, but serves to keep the body at an equable temperature, thus lessening the liability of muscles that are tired or strained to become affected by cold. Iron, arsenic and strychnia are valuable tonics for cases of myalgia. Iodide of potash and syrup of hydroodic acid are also useful, from their alterative properties.

But in every case of myalgia, rest—absolute rest—is a positive necessity, in order that the muscles be allowed to regain their normal tone.

HYPERTROPHY OF THE TONSILS.[1]

BY THOS. HUNT STUCKY, M. D.,

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PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE HOSPITAL COLLEGE OF MEDICINE, LOUISVILLE.

Of all the diseases of the upper air passages, I know of no one more conducive to the production of serious after-effects than hypertrophy of the tonsils. As to the etiology of this hypertrophy, very little is found in current literature. The exanthemata, diphtheria, and frequent attacks of pharyngitis, seem to be etiological factors. The strumous diathesis appears to be a factor in their formation, while on the other hand we find these hypertrophies in apparently healthy children. Mackenzie states that the disease not infrequently becomes developed about the age of puberty, owing, as some suppose, to a sympathetic connection between the sexual organs and the tonsils. Sex is not without some influence in producing the affection; for out of one thousand cases recorded in Mackenzie's tables, six hundred and seventy were in males, and three hundred and twenty-seven in females. Some cases follow acute attacks of quinsy, hereditary or acquired syphilis, granular pharynx, etc.

As a rule after the age of thirty years spontaneous cure takes place, it being the natural course of the tonsil glands to atrophy after this age.

One or both tonsils may be involved, usually both. In my judgment, no improvement has been made upon the pathology, as stated in the work of Dr. Sajous (*Diseases of the Nose and Throat*, 1888, p. 286) which is as follows: "As in hypetrophy of the glandular tissues of the naso-pharynx, the lymphatic element which forms an important part in the anatomy of the tonsils is probably causative in the maintenance of the early inflammatory process which forms the primary steps to the hypertrophic changes. When this has progressed for some time, the epithelial layer is greatly thickened, and the mucosa under it is permeated with lymphatic cells and new tissue elements. The size of the tonsils is principally increased by the proliferation of new connective tissue interspersed with bundles of fibrous tissues, while their density depends upon the degree of organization which these tissues have reached."

In many cases the presence of enlarged tonsils has been unknown, until they offered a mechanical impediment to the performance of the physiological functions of the pharynx. In the young or in children, their presence often causes a diseased condition of the contiguous parts, without in themselves presenting marked symptoms. The lumen of the pharynx is diminished by their size, and thus the passage of the respired air is restricted in proportion to the extent of the hypertrophy; hence the patient keeps his mouth open and breathes through it, to compensate for the lack of current inhaled through the nose. A catarrhal condition of the nose is excited by the accumulation of secretions, due to the limited air force to dislodge and expel them. The mouth and throat are kept dry and exposed to the action of what foreign bodies may be present in the atmosphere. The voice loses its resonance; snoring and disturbed breathing, sleep and dysphagia, are complained of, while all the objective and subjective symptoms of a catarrhal inflammation of the nasal passages and throat may be present, complicated in some cases with impaired healing, through involvement of the Eustachian tubes as a result of frequent attacks of acute tonsillitis. In some cases, the lacunæ or crypts are filled with a cheesy accumulation, which evolves a very fetid odor, contaminating the breath, and the inspired air.

The interference with sense of hearing, in some cases amounting to almost complete deafness, is a frequent concomitant of hypertrophy of the tonsils. It was at one time supposed that compression of the orifices of

[1] Read before the American Rhinological Association, October, 1890.

the Eustachian tubes played the principal part in the production of throat deafness; but the observations of the late Mr. Harvey tend to prove that the increase in the size of the tonsils proceeds in the direction of the mouth, and that as the tonsils enlarge, the Eustachian aperture becomes more patent than in the normal state. He therefore attributes this form of cophosis to chronic swelling and congestion of the mucous membrane of the Eustachian tube; and recent researches have shown one of its chief causes to be pressure of Luschka's tonsil on the posterior lip of the Eustachian orifice. The effects of continued mouth breathing, which are so manifest to all the Fellows of this association, may be appropriately reiterated: "The silly expression of the face, the dilated nostrils, the nervous manner, poor articulation, frontal headache, in many cases impaired hearing, may be due to hypertrophied tonsils. By the presence of these foreign bodies, for such they are, a constant mechanical irritation is kept up."

It is immaterial whether the hypertrophy be due to the engorgement of the crypts or lacunæ due to either an active or passive congestion, or to a true inflammatory hyperplasia, the indications for treatment are cogent. The treatments of these conditions are many and varied. Where there is a simple hypertrophy, due to an acute catarrhal inflammation, the topical applications of the mild astringents have proven to me to be of little benefit. At times a patient will present himself, complaining of pain upon swallowing. An examination will reveal enlarged tonsils with active inflammation in progress. A more careful examination shows a crypt aperture, further investigation showing it to be plugged with a cheesy substance, the removal of which affords relief without treatment.

The rheumatic character of acute tonsillitis, or hypertrophy is accepted by a large number of the profession. The salicylate of soda, at the commencement of an attack, in ten-grain doses to an adult, every hour or two until one drachm has been taken, will abort many attacks. On account of the decided nausea produced in many persons by this drug, of late I have used the effervescent salicylate of lithia with equally satisfactory results and no nausea. For the simple acute hypertrophy, the treatment is constitutional and locally astringent. If, after a few applications, the size of an enlarged tonsil is not diminished, puncturing, so as to produce free bleeding, has proved serviceable. If we resorted in many of these cases to local as well as constitutional depletion, we would have fewer true fibrous hypertrophies with which to deal, and would curtail very markedly the necessity for much subsequent treatment. Chromic acid (Merck) melted on a probe and carried into the crypt, is recommended and used quite extensively. Carbolic acid has its many advocates, as has monochloral acetic acid, trichloral acetic, glacial acetic, etc. When these acids are used, a film of cotton is wrapped about the end of a small probe and carried well into the crypts. The end sought is the production of a sufficiently active new inflammatory process to cause adhesion of the sides of the pocket—enough inflammation to destroy or produce absorption of what little thickening or excessive cell production which may have occurred. Nitrate-of-silver solution instead of causing a decrease in their size, seems to cause an increase, a fact theoretically explained by the stimulation induced by the agent, and its tendency to encourage formation of new elements, as stated by Sajous. When the tonsils are soft, the galvano-cautery is very effective, a few deep cauterizations being made twice a week. I have introduced the galvanic needle its full length into the tonsils at several different points about one-eighth of an inch distant one from the other. This has proved as efficient as the method just mentioned, if not more so, causing less pain at the time of the operation, and not so much uneasiness afterwards, in deglutition.

There is one precaution which should be remembered when using local applications of acids to hypertrophied tonsils, and especially when operating with the galvano-cautery, viz.: the possibility of having an active, extensive inflammation to follow, producing middle-ear suppuration. I recall three cases which occurred in this city. One following the use of carbolic acid, the second chromic acid, and the third the galvano-cautery. The last occurred in my practice, and I now believe it was due to faulty use of the same.

The galvano-cautery snare, where we have the history of hemorrhagic diathesis, is a great and valuable addition to our armamentarium. Dr. Morell Mackenzie recommends the use of London paste, applied once or twice a week, according to circumstances, over various parts of the organ. This method is slow and painful. Where the organ is fibrous, dense and hard, tonsil-

lectomy should be resorted to. While the danger from hemorrhage is reduced to a minimum, the time, suffering and inconveniences which are overcome by ablation render it, in my judgment, the operation for speedy relief, and it should always be performed where the hypertrophy is dense in character. Where we have the opposite state of affairs, that is, softness and bogginess, the methods previously mentioned are to be preferred. By the injection of a ten per cent. solution of muriate of cocaine into the parenchyma of the tonsils, the operation by constriction of the blood-vessels is rendered almost bloodless.

The tanno-gallic gargle of Mackenzie is an excellent after-treatment for the bleeding. Hot water is also very serviceable and less disagreeable. The tonsillotome as modified by Tiemann, where a section may be made at any angle is preferred. The bistoury with forceps is recommended. This method requires an assistant and the inability to be exact in the amount removed is a serious objection. The cold wire snare is painful, slow, and will eventually be superseded by the galvano-cautery. The treatment after removal, by whatever method employed, should be constitutional and local. Most all patients suffering from tonsillar hypertrophy are anemic. With children the constructives and hematinics are indicated, the syrup ferri iodidi, syrup ferri albuminatis, and elixir of the three chlorides (iron, arsenic and mercury) being very serviceable, the latter especially during the "chlorotic" age of girls. The simpler the after-local treatment is, the better and more speedy the results.

The cause being removed, the use of a cleansing spray of melted vaseline with an astringent, stimulant or sedative, as required, will rapidly relieve. If the uvula and soft palate remain relaxed, after tonsillectomy and the use of the astringents, amputate the uvula. The ear symptoms, if acute, generally subside rapidly. After removal, special attention is called to the condition of the nasal passages. Thorough cleanliness is to be secured by the removal of all secretions. If hypertrophies of a chronic character exist over any of the turbinated processes, they should be removed by means of the cautery or in some other way. Simple distention of the Eustachian tube, by the method of Politzer or Valsalva, will oftentimes relieve the patient by a few treatments. These methods should never be used unless the nasal passages, as well as the vault of the pharynx, has been thoroughly cleansed. If there is no marked change in the tympanum, massage has proved of service. Of all the methods named, in my judgment, tonsillectomy, or ablation and the galvano-cautery are the best.

Foreign Correspondence.

BERLIN LETTER.

Opening of the Berlin University.—Glimpses of the Medical Student's Life.—Legal Protection of German Practitioners.—Suppression of Patent Medicines.

BERLIN, October 13, 1890.

The Royal University inaugurated yesterday the beginning of the new academical year by a solemn commencement held in the magnificently renovated aula. Odd procedings, as introduced hundreds of years ago, are still in vogue during that celebration. The retiring and the newly installed Rectors of the University appear attired in most gorgeous costumes, invested with the insignia of their exalted office, and are led to their seats by the janitors of the institution, who in their scarlet robes look like veritable hangmen.

The new Rector, Professor Tobler, delivered a lecture on the study of the Roman languages and announced the opening of the academical year. The strangest thing, however, connected with the affair was that not a single student was present and the uselessness of the announcement will be conceived from the fact that at present there are no students at all in Berlin. Before the 3d of December no "Musensohn" condescends to visit a lecture room, and consequently no professor is able to begin with the course.

It will interest the readers of the REPORTER, perhaps, to follow up the course pursued by the young medical student on his entrance in the University. The Rector compels him to swear to obey the laws of the University and hands him his card of matriculation. This card confers exceptional and almost undue powers upon the young man. No policeman, for instance, is entitled to arrest or touch the proprietor of the card, nor do the common courts have any jurisdiction over him. A policeman dares only demand the delivery of the card, whereupon arrest and judgment may follow, but only by

the academical authorities. Quite handy, too, is the card, for if the student desires to visit theatres, concerts, or similar places of amusement, on presenting it he either enters free or pays about one-fourth of the usual admission. If at times he should be hard up, his card proves again his best friend; for he can easily obtain money, clothes, provisions, books and almost anything at all on the strength of it. As explanation of this I will say that a student is here regarded *a priori*, as a man of honor who if unable to pay to-day, will surely do so some other time. Hundreds of legacies, in addition, administered by the University, afford poor and diligent students financial aid, and every professor is willing to wait for his fees even five years or longer. There is little or no work done during the first academical year; clubs and saloons absorbing the student's whole time. The American student does more work in three years than the German does in four. The latter may be seen parading *Unter den Linden* from 11 A. M. to 2 P. M. At two they take their lunch in the Academische Bierhalle, at a cost of twelve cents, including a glass of beer; from 3 to 5 P. M. they take their nap. At six there is a rendezvous *Unter den Linden* with members of the Club, and from 8 to 2 A. M. they are hard at work in their Stammkneipe, that is, the saloon of their Club. This is no fanciful representation, but a true description of the way in which the young German med. spends his first academical year. The second year is largely devoted to fighting, fencing and duelling; for a student does not pass for much unless his face is graced with two or more disfiguring cicatrices. In the third year he visits lectures and hospitals, and in the fourth he is spurting to make up for his prior waste of time. Examination time draws near and the necessary cramming under the "*Repetitor*" having been completed, he presents himself for examination at the first "station," which in Berlin is presided over by Jupiter Tonans, *i. e.*, Prof. Virchow. The fate awaiting him there, he knows beforehand; Virchow knows no mercy, and of one hundred candidates five only succeed at the first trial. As a rule the thunderer throws all candidates at first. Then they come up again before him in six weeks. Liebreich too is a great stumbling-block for the poor candidate. He gives you a liver and desires to know how much arsenic there is in the organ, and is a strict examiner on chemical formulas, although they do not come strictly within his province. Candidates are compelled to appear for examinations in full-dress suit, white kid gloves, and white tie. The passing of this so-called "Staatsexamen" (State examination) confers upon the successful candidate the title of "Arzt" or physician, and the right to practice, while the title of Doctor must be especially acquired. No foreign diplomas, save those of Australian Universities, are recognized in Germany.

While in this respect the German physicians enjoy great protection, legislation has on the other hand done the profession an incredible wrong. In Germany everybody has the right to practice medicine, no matter whether he knows little or nothing of the healing art. To be sure no illegal assumption of the titles "physician" and "doctor" is permitted. Hence it is not surprising to find quackery in a high state of development in Germany. Fortunately police vigilance is so strict, and punishment for malpractice is so severe, that quacks usually confine themselves to hydropathic and similar non-remedial measures. Electric and magnetic quack doctors singularly do not flourish much in Germany. Homœopathy too is very little known here. I have never yet noted the sign of an homœopathist, and they are classed without ceremony with the quacks. It is strange, however, to find that every apothecary has the sign "*allopathische und homœopathische Apotheke.*" The sale of patent medicines is strictly forbidden, and every newspaper advertising them is severely fined. The Superintendent of Police of Berlin publishes monthly in all papers an analysis of newly appearing patent medicines, states their actual cost, emphasizes their uselessness or possible injurious character, and warns against their purchase. Only recently H. H. Warner's Safe Kidney Cure was thus proscribed by the authorities. It is clear that under these circumstances venders of patent medicines cannot become millionaires as in America.

—In a late number of *La Lyon Médicale*, attention is drawn to an article by Dr. Filatoff, of Moscow, showing that heliotrope can be substituted with advantage for quinine. The plant, it is stated, has for some time been in use as a popular remedy against fevers in Russia, in Turkey, and in Persia. In each of these countries a tincture is prepared by macerating in alcohol the leaves and stalks of the plant.

PERISCOPE.

Curability of Acute Phthisis.

Dr. McCall Anderson, Professor of Clinical Medicine in the University of Glasgow, says in the *British Medical Journal*, November 8, 1890:

The term acute phthisis is frequently used in a very vague manner, and is applied to cases which have no title whatever to the appellation, as any one can readily satisfy himself by a perusal of the medical journals. It is, therefore, important at the outset that I should specify the limited class of cases to which I am about to refer. By acute phthisis, then, I do not mean cases merely of short duration, nor chronic phthisis associated with more or less fever, nor those which, while running their course, suddenly develop acute symptoms. But I allude to cases of phthisis setting in suddenly, with high and continuous fever, great prostration and profound involvement of the system, reminding one rather of typhus or a severe attack of typhoid fever than of a pulmonary affection. Indeed, in some instances it may be necessary to watch the course of the disease for some days before an absolute diagnosis can be made, so that the term "galloping consumption," used by many of our leading authorities, although not a scientific one, conveys to the mind a most accurate impression of the kind of disease with which we are dealing.

Such cases are comparatively rare, and are only exceptionally met with in hospital practice; not only on this account, but because the patients are supposed to be too ill to be removed, or, if removed, they are fully as likely to find their way into a fever as into a general hospital.

There are two forms of acute phthisis: (*a*) acute tuberculosis, and (*b*) acute pneumonic phthisis. In acute tuberculosis tubercles are more or less copiously disseminated throughout the lungs, and often also in other organs. But the symptoms of acute phthisis do not appear unless or until these foreign bodies produce congestion or inflammation of the pulmonary tissues, and, if the patient lives long enough, breaking down of the lung tissue may occur here and there, with the development of small excavations. That the infiltration of the lung with tubercles does not necessarily lead to acute phthisis is proved by the occasional discovery, *post mortem*, of obsolete tubercles scattered through the lungs in the case of those who never experienced pulmonary symptoms during life.

In acute pneumonic phthisis the disease exhibits almost from the first a more or less extensive consolidation, most frequently of the upper lobes, which often spreads to other parts, and, instead of resolving in a week, like a croupous pneumonia, leads to rapid and widespread destruction of lung tissue, which soon terminates the life of the patient.

A perusal of the literature of the subject leads to the conviction that authorities are very hopeless with regard to the prospects of sufferers from this disease, and, while I have read numerous records of fatal cases, I have never met with a carefully recorded case fulfilling the definition of acute phthisis, as I understand it, in which a complete restoration to health occurred. There are many, however, who hold that acute tuberculosis is the more certainly fatal of the two, while I am rather inclined to the opinion that acute pneumonic phthisis is probably the more dangerous, as it leads to such rapid and widespread destruction of the pulmonary tissue. Including the case which follows, I have put on record seven instances of acute phthisis, all of them treated in a similar manner; and it is a remarkable fact that of the seven, five recovered. Of the two fatal cases, one was beyond the reach of recovery when he came under observation, his lungs being extensively disorganized, while in the other instance the fatal issue was due to the complication of perforation of the lung. There is an interest, however, in connection with the fatal cases in reference to diagnosis, for in both the *post-mortem* examinations showed their tubercular nature. The cases to which I have just alluded—of which four were published in the *Lancet*, March 24 and March 31, 1877, and the fifth and sixth in the *British Medical Journal*, February 19, 1881, the seventh being described later on—tend to show that if acute phthisis is grappled with early and energetically, and *with an expectation of success*, the prognosis is far from gloomy, and the more I see of the disease the more hopeful do I become.

Let me give you a brief outline of the kind of treatment upon which, in my opinion, reliance may be placed, but it must be understood that no two cases can be treated exactly in the same way; each patient and his surroundings must be specially studied before deciding upon our line of action. The principal indications are—1, to keep up

the strength; 2, to keep down the fever; and 3, to treat any special symptom or complication which may arise.

Two thoroughly trained and reliable nurses are indispensable, one for day and the other for night duty; for without admirable nursing no hope of improvement can be entertained; and the hygienic and other surroundings of the patient should be satisfactory, so that we need not be surprised that, when the disease occurs in the homes of the working classes, it is almost necessarily fatal, and that hospital patients have the best chance of recovery. The patient must be fed constantly on fluid food (soup being avoided if diarrhœa is present) both day and night, and stimulants (from f℥ii to f℥x) are required early in the attack, but should be given in small quantities, frequently repeated and along with the food. In fact, the dietetic treatment should correspond with that of a case of fever presenting symptoms of a similar degree of severity. At bedtime a subcutaneous injection of sulphate of atropine (gr. $\frac{1}{100}$ to gr. $\frac{1}{60}$) is given. This checks perspiration when present, acts as a sedative to the system, indirectly helps to reduce fever and diminishes the secretion from the lungs.

Remedies are given with the view of lowering the temperature. This is a point of the utmost consequence, because the majority of the patients die consumed by the fever. Some benefit is derived by allowing the sufferer to suck ice freely, by giving the food and drinks iced, by sponging the body with iced vinegar and water, or even by using iced enemata.

But our main reliance is upon one or more of the following methods:

1. Niemeyer's antipyretic pill or powder every four hours, containing gr. 1 quinine, gr. ½ to gr. 1 digitalis, and gr. ¼ to gr. ½ opium. The proportion of opium may even have to be increased beyond this if there is much diarrhœa. The effect of the digitalis must be carefully watched, and it must be omitted for a time if the pulse becomes preternaturally slow and irregular and the secretion of urine very scanty.

2. The administration daily—particularly shortly before the temperature tends to be highest—of from 10 to 30 grains of quinine, given, as suggested by Liebermeister, either in a single dose or, at all events, within an hour.

3. The application of iced cloths to the abdomen for half an hour every two hours so long as the temperature exceeds 100°. The application of iced cloths is made in this way:

The night-dress is pulled well up over the chest so as to avoid any possibility of its being wet, and, for a similar reason, a folded blanket is placed across the bed under the patient's body. The usual bed-clothes are arranged so that they reach up to the lower part of the chest only, which latter is covered by a separate blanket in order to prevent unnecessary exposure while the cloths are being changed. Two pieces of flannel are employed, each being sufficiently large when folded into four layers to cover the whole of the front and sides of the abdomen. One of these, wrung out of iced water and covered with a piece of dry flannel to protect the bed-clothes, is applied, while the other is lying in a tub of iced water at the side of the bed. The pieces of flannel are changed every minute, or so often that they still feel cold when they are removed. The changing of the flannel, particularly when two persons are in attendance, one to remove the bed-clothes and the flannel, the other to apply the piece which is freshly iced, can be accomplished in a few seconds.

I mention these apparently trivial details because I often see the process carried out in such a way as to be worse than useless, and because I have frequently been interrogated on the subject. But I think it right to add that I do not wish to lay too much stress upon the value of iced cloths by themselves, but to attribute the success of the treatment to the combination of measures employed. Of course the same precautions must be taken in using iced cloths as in the employment of the cold bath, and they must be removed at once if the temperature falls to near the normal, and if there is any tendency to coldness and collapse.

Such is a general outline of the line of treatment from which such excellent results have been obtained, and the more experience I have of it, the more confidence do I place in it; but, of course, in this, as in all disease, we must avoid routine, and must study each case by itself, as no two cases can be treated exactly alike.

New Antiseptic Dressing.

Dr. Francis T. Heuston, in a paper read in the Section of Surgery at the annual meeting of the British Medical Society,

Birmingham, July, 1890, said that some months ago Dr. Tichborne, whose work in the chemical world is so well known, suggested certain drugs which he considered would probably meet his requirements. After due consideration Dr. Heuston experimented with those which he thought would be most effectual, chiefly napthalin and sulphite of zinc; the latter proved so successful in his hands that he brings the result before the profession in the hopes that it will be found of service. He claims for the dressings prepared with this salt that they are non-poisonous, non-irritative, and highly antiseptic, while their application is extremely simple.

In applying the dressing Dr. Heuston sometimes dips the piece of gauze placed in contact with the wound in a weak carbolic solution—this is not, however, essential—and then applies three or four layers of dry sulphite of zinc gauze, the whole being retained in its position by a simple gauze bandage. As will be seen, it is applied in the manner commonly employed in the use of alembroth gauze.

As far back as 1870 Dr. Tichborne introduced sulphite of zinc to the profession as an antiseptic. At that time this salt was not in commerce, and the few existing references which were to be found in such books as Gmelin's *Handbook* or Watt's *Dictionary of Chemistry*, were anything but correct. In the paper above referred to, its properties were described, as also a new process for its preparation, and its use as a general antiseptic suggested; but in 1870 antiseptic surgery, as now understood, did not exist, and it is now proposed to utilize this salt to prepare an antiseptic gauze having special properties. Dr. Heuston gives the result of a carefully conducted series of hospital experiments to which he has submitted it, and which seem to conclusively prove its great value as an adjunct in operative surgery. He says:

"In the original paper read before the British Pharmaceutical Conference, 1870, the chemistry of this salt and the process of making it were dwelt upon very fully; for the purposes of this paper it will, therefore, be only necessary to give concisely a few of the salient points which bear upon the inquiry.

"Sulphite of zinc is best prepared by mixing in solution six parts of zinc sulphate and five and a quarter parts of sodium sulphite. The new salt forms slowly, and falls as a white crystalline precipitate; it is very insoluble in water, but soluble in an excess of sulphurous acid.

"Sulphite of zinc exists in two conditions of hydration as a di or trihydrate according to the temperature at which it is dried, as we will assume that in making the gauze and similar fabrics the salt is always dried at 100° C., the composition of the sulphite present will be $ZnSO_3 2H_2O$. When dry, sulphite of zinc is a perfectly stable compound, and we have gauze six months old which possesses all its pristine antiseptic properties. We tinge the gauze with an organic dye, and this fact affords an easy method of determining if the gauze, however old it may be, possesses its antiseptic properties. If a little gauze is placed in water and acidulated with sulphuric acid, it at once bleaches from the free sulphurous acid, when wet or in solution it suffers a slow oxidation, and hence its antiseptic power. It is very insoluble in water, being only soluble in that menstruum to the extent of 0.16 per cent. (about ¾ grain to the ounce). When such a saturated solution was tested from day to day with a volumetric solution of iodine, its oxidation into sulphate was seen to be very gradual, but very regular.

"On the eighteenth day, the sulphurous acid was all converted into sulphuric acid. When sulphite of sodium is mixed with sulphate of zinc, the sulphite of zinc is very slowly formed, but is ultimately all deposited, owing to the insoluble nature of the new-formed salt. This phenomenon adapts it naturally and with ease to the permanent saturation of any fabric, as gauze or lint, and without the intervention of any adhesive material such as starch. We first boil the gauze in water to thoroughly wash and sterilize it; then upon this gauze is poured a boiling solution of zinc sulphate and sodium sulphite in equivalent proportions; when thoroughly mixed and saturated the whole is allowed to stand twelve hours. The zinc sulphite is deposited in and around the fibres of the fabric in microscopic crystals, but soft and even unctious to the feel. The deposition of the zinc sulphite is represented by the subjoined equation:—

$$Zn\,SO_4 + Na\,SO_3 = Zn\,SO_3 + Na\,SO_4.$$

"Now, it will be noticed that sodium sulphate is a resultant of the above decomposition; the greater part, however, remains in solution, and we pass the gauze twice under rollers submerged in water with the object

of removing all traces of this sodium sulphate which might remain. The gauze may be dyed, with the twofold object of watching the progress of the discharges, and with the purpose of branding it distinct from other surgical dressings."

In the discussion, Mr. Kendal Franks said he had found so much cutaneous irritation following the use of the mercuro-cyanide gauze that he was glad to put to the test of experience the gauze dressing described by Mr. Heuston. He had been very fairly satisfied with the alembroth gauze, though it also occasioned irritation of the skin. He has now used the sulphite of zinc gauze in many cases. In every case he has found the wound to run a perfectly aseptic course, and in no case has he seen the slightest irritation of the skin beneath the gauze. It would, he thought, prove a valuable addition to surgical dressings.

Sure Cure for Phthisis.

The Paris correspondent of the *Lancet*, Nov. 8, 1890, writes:

M. and Madame Foux are an old couple of about seventy years who have discovered an "infallible cure for phthisis." M. Foux exercises the calling of engraver, but, devoting his leisure hours to scientific research, he succeeded, aided by his spouse, in inventing a potion "*fondant, détensif*, and *cicarisant*," which plays havoc with the tubercle bacillus and immediately restores the patient to health, even in desperate cases. The couple enjoyed an immense reputation in the east end of Paris, and numbers of people came from all quarters to purchase a few drops of the precious elixir, which has quite forestalled the rather late-in-the-day remedy which Koch, of Berlin, is at so much pains to make public. M. Foux differs from this investigator, however, in that, in order to preserve in perpetuity the secret of his labor, he always administers it in person, or, failing this, he deputes the trusty partner of his joys and fame to act for him. When the patient has swallowed the draught Foux retires, carefully pocketing his fee, but he never leaves a drop of the remedy in the hands of the sick person. On a recent occasion he was summoned to the bedside of a poor fellow in the last stage of consumption; but, having other and more pressing professional engagements, he sent his wife with the draught. She administered it, but scarcely had she gone than the patient was seized with severe hemoptysis. Now with this untoward crisis the harmless decoction had in all probability nothing whatever to do; but such is the fickleness and ingratitude of human nature that the friends attributed the hemorrhage to the medicine. The nearest chemist was now summoned, who in turn called in a doctor. Having attended to the patient's immediate wants, they decided to summon the philanthropic lady to exhibit another potion, but set a trap to confiscate it before she could do so. For this purpose the chemist concealed himself in the room, and appeared just as the draught was about to be swallowed by the patient. Having seized the phial, he commanded the old lady to accompany him to his shop. Once arrived there, he put the bottle down for a moment, at the same time threatening the quack's wife with the consequences of poisoning people. Seeing an opportunity, she snatched the phial and swallowed its contents, retorting on the baffled chemist that she was a strange poisoner, since she drank her own poisons. When brought before a police magistrate a few days later, the male quack declared with the most haughty dignity that nothing in the world would induce him to reveal his secret. The female prisoner gave an amusing account of the trap that had been laid for her, declaring that were it not for her presence of mind, not only would the secret have been discovered, but that the infamous chemist would not have scrupled to add some poison of his own to her drug. She naively declared, however, that she could give no better proof that the medicine was harmless than by swallowing it herself, and she caused considerable hilarity by calling the magistrate's attention to the fact that she was not yet dead. In the result they were fined $200.

Carbonic-acid Gas for Gonorrhœa.

Dr. Thomas C. Minor, of Cincinnati, in the *Cincinnati Lancet-Clinic*, November 22, 1890, proposes the treatment of gonorrhœa and gleet with carbonic-acid gas water, and seems satisfied with the results he has obtained in a few cases by this method. After describing his first case he says:

"During the summer of 1888 at least three other cases were treated in the same manner, with varying results as to the duration of treatment, and in all these cases the

marked effects of checking discharge and allaying urethral irritation were manifest. One of these cases recovered in five days, but in the other two cases the disease persisted for at least two weeks before it disappeared. In these cases, as in the first, the supra-pubic pain was intense. Further experimentation was discontinued until the winter of 1889, when two more cases were treated in a similar manner; also a case of gleet of eight months' standing. The former cases yielded to treatment, one in five days and the other in about two weeks. In the case of gleet almost three weeks' time was consumed before the patient was perfectly well. During the present year (1890) two cases of acute gonorrhœa were most satisfactorily treated, one yielding in six days and the other in two weeks.

"The supra-pubic pain following the injections has been noticeable in all of these cases, and is the only objection offered to the application of the treatment; in fact, in several cases, when attempts were made to apply the remedy a second time, the patients objected so strenuously that the treatment was not pursued further.

"The advantages of this plan of treatment may be briefly enumerated:

"1. Its ready adaptability. A patient, after having the method used once or twice, can apply the treatment himself.

"2. The speedy diminution in the amount and character of the discharge. The amount of discharge is usually lessened at least one-half by the second day of treatment; it loses its purulent character, becoming thin and watery.

"3. The advantage of an entirely local treatment, without change of diet. No nauseous drugs like copaiba and sandal wood are given to upset the stomach, and in two instances where the patients took a few glasses of beer daily no change was made in food or drink, although those patients who did not take stimulants yielded most rapidly to treatment.

"Care should be taken when the supra-pubic pain comes on to immediately relieve the tension in the urethra and allow the seltzer or vichy to flow from the urinary passage. In cases where not very intense pain results the gas may be allowed to have full play on the mucous membrane for four or even five minutes.

"Several medical friends in this city are now experimenting with this, so far as the writer is aware, new plan of treatment, with varying results. Dr. W., who will probably report some cases before one of the societies, at my suggestion used the carbonic-gas water, warmed, for vaginal irrigation in several cases of leucorrhœa with surprisingly good results; also in a case of cystitis, where the results were more than usually beneficial.

"As the treatment is so simple, it merits a trial at the hands of careful practitioners. The apparatus is not complicated, being only a charged syphon with a rubber tube armed at the urethral end with either a champagne tap or a female catheter; thus any one can easily make the therapeutic application. It has seemed to the writer that in cases of stricture a catheter could be connected with the gas-containing tube and the pressure of the gaseous water from the syphon be made to distend the urethra directly in front of the instrument, thus avoiding unnecessary laceration and hemorrhages.

"In making these irrigations it is well to remember that the patient should void his urine before the injection is used."

Induction of Premature Labor.

At the Tenth International Congress, the Gynecological Section discussed the indications and methods for the induction of premature labor. The correspondent of the *Medical Press*, October 8, 1890, writes that the discussion was introduced by Dr. Calderini, of Parma, who commenced with the statement that in the interest of the child premature labor should not be induced when the pelvis was ricketty, and the conjugate below 7½ ctm. (2 15-16 in.). With proper antiseptic precautions, on the other hand, when the pelvis was contracted, non-ricketty, when the conjugate was 8½ ctm. (3 1-16) or even less, premature labor could be induced with advantage. The mortality of children born after prematurely induced labor might be diminished. The best method of inducing it was by warm douching through a Fergusson's speculum, and the introduction of a solid bougie up to the fundus uteri. In certain diseases it was advantageous to puncture the membranes simultaneously. Dr. Calderini brought forward a table showing the comparative maternal mortality with the different methods of procedure, viz.: an ascending mortality from turning, induction of premature labor, symphysiotomy, forceps, perforation, Porro's operation and Saenger's Cæsarean section. The child mortality on the other hand ascended from

Saenger, to Porro, symphysiotomy, forceps, artificial induction of labor and turning. In pelves of over 7.5 ctm. induction of artificial labor was to be preferred, and at the end of term combined version. In the interests of the child the preference might be given to Cæsarean section, but the maternal mortality from the operation was still too high to permit of its displacing induction of premature labor, turning and forceps.

Prof. Dohrn, of Königsberg, was of opinion that induction of premature labor was the most appropriate method of delivery when the pelvic narrowing was moderate—conjugate 7 to 8 ctm. He could give recent statistics of 271 cases in proof of this; 271 inductions of premature labor gave 163 living children, or 66.1 per cent., whilst 171 full-time labors of the same women gave 50 living children, or only 29.3 per cent. As regarded the mothers the results were: 318 inductions of premature labor, 16 deaths, equal to 5 per cent. Cæsarean section could not yet take the place of induction of premature labor. Diameters of 7 to 8 ctm. were the lowest limit of artificial induction. The most careful antisepsis was necessary. He warned his hearers against operative delivery of the induction of premature labor.

Prof. Leopold, of Dresden, had induced premature labor in 75 cases with one death, but his maternal mortality after Cæsarean section was 9 per cent. He said the indication for artificial premature labor began where that for Cæsarean section ceased, it could only come into consideration in pelvis of 7 ctm. (2¾ in.) and over. The mortality of children was great from the difficulty of correctly estimating the period of pregnancy, labor was often induced too early. Cæsarean section was an operation for hospitals, not for private practice. At the end of pregnancy, perforation was preferable to Cæsarean section, and with a later conception the timely induction of premature labor.

Prof. Löhlein, of Giessen, did not believe that induction of premature labor and Cæsarean section could come into rivalry, but perforation of the living child and Cæsarean section. Labor should not be artificially induced before the thirty-fifth week. It was indicated in cases of nephritis. One should be cautious about inducing labor in cardiac disease.

Herr Fehling, of Basle, in 70 cases of induced premature labor had had one death, and 80 per cent. of living children. He was therefore in favor of inducing labor. As regarded the methods, he first used iodoform gauze tamponnade, then the colpeurynter, then again the tamponnade; and if these means failed, he allowed the colpeurynter to remain in.

Herr Balandin, of St. Petersburg, pointed out that the main action of means of exciting pains in artificially induced premature labor, depended on septic influences. He preferred induction of premature labor. It was often complicated by feeble pains. A firmly distended uterus responded more readily than a flabby one. Generally speaking the induction of premature labor was free from danger.

Herr Kocks, of Bonn, recommended an instrument devised by himself for the purpose, which dilated vagina and cervix uteri both at the same time.

Mouth of the Infant at Birth.

The *Edinburgh Medical Journal,* November, 1890, contains a paper of unusual interest by Dr. J. W. Ballantyne, upon the anatomy of the head of new-born infants, in which he gives the following description of the oral cavity.

"In all the sections of the heads of infants which I have made, the mouth was seen as a potential cavity, the dorsum linguæ came into contact with the vault of the palate above, and the tongue was in apposition to the inside of the cheeks and gums laterally. In all the specimens, also, the tip of the tongue lay upon the upper surface of the lower gums. It is a fact worthy of note, that even when the mouth is tightly closed the gums do not come into contact. This fact, which is revealed by frozen sections, Symington specially dwells upon as showing that provision exists at birth for a considerable development of the alveolar arches and teeth before the gums of the two jaws can really meet. I have not, however, been able in my cases to show that the distance between the jaws is so great as Symington found it, namely 6 mms., for in the specimens examined it measured from 2 to 4 mms., and in one case the jaws were in contact. Another peculiarity about the buccal cavity in the new-born infant is the fact that the lower jaw lies in a plane posterior to that of the upper jaw. In a sagittal vertical section of the head, the anterior surface of the lower jaw is seen to lie in the same vertical plane as the posterior surface

of the upper jaw. As life advances the jaws come into line with each other, and with the development of the teeth the space between the gums disappears.

"If the tip of the tongue be raised in the case of the new-born infant, two folds of the mucous membrane are seen, one of which, the larger and outer, has a dentated margin, and is called the plica fimbriata; the other, which is smaller and is situated nearer to the middle line and the frenum, is known as the plica sublingualis. In one of my cases there was found under the tongue on the right side a congenital ranula which contained a small quantity of clear limpid fluid.

"H. Ranke has in a recent paper (Ein Saugpolster in der menschlichen Backe, *Virch. Arch.*, Bd. xcvii, pp. 527–547) drawn special attention to pads of adipose tissue which exist in the cheeks of new-born infants, and which are, as Symington shows, present also in the child. Ranke was led to the study of these bodies by the fact that in a child one year old, in a state of great emaciation from continued diarrhœa, the cheeks presented a swollen appearance. This swelling he found to be due to the presence of a distinctly encapsulated mass of adipose tissue, the so-called sucking pad (Saugpolster). He made sections of the face, coronal and horizontal, in the new-born infant, and also dissections from the skin surface inwards, and found that these pads were distinct structures which were not continuous with the subcutaneous adipose tissue. In several of my sections the relations of these pads could be seen, and they were always easily differentiated from the surrounding fat from the fact that on putting the sections into spirit the pads changed their color slightly, and shrank from the adjacent tissues in one case to the extent of being easily removable. Each pad lies in the neighborhood of the duct of the parotid gland, upon the buccinator and partly upon the masseter muscle, and has superficial to it the musculus risorius of Santorini. An offshoot from the pad passes into the spheno-palatine and zygomatic fossæ. Each has a vertical diameter of about 2 ctms., a transverse of about 1.5 ctm., and an antero-posterior of a little over 1 ctm. They are found not only in the infant but also in the child and adult, and are present even when the adipose tissue in other parts of the body is extremely small in amount. They are no doubt connected physiologically with the act of sucking, hence the name of sucking cushion given to them, and probably act by distributing equally the atmospheric pressure, and preventing the drawing inwards of the buccinator muscle between the gums during the efforts of suction when a vacuum is created in the buccal cavity."

Medical Training and the Languages.

In a recent address before one of the largest medical associations in the United States, the speaker argued that the medical student's work should begin with his academic life; that the selection of a career in medicine being determined upon, attention should be given to the cultivation of the mind in the study of Latin, Greek, German, French, physics, etc., to the exclusion of the higher mathematics. Every one admits that a knowledge of Latin is essential to intelligent medical training, and when one is reminded that practically one-half the words in Dunglison's *Medical Dictionary* are of Greek origin, it is not difficult to become convinced that this *dead* language is equally essential. As far as medicine is concerned, nothing can be more deplorable than the decline of Greek in the classical curriculum. In Hungary, according to a recent letter in the New York *Times*, it has been abolished, while in Italy it is treated as an optional aid to philology. The importance of German and French may be appreciated when it is estimated that about one-half of current medical literature appears in these languages.—*Harper's Weekly.*

Santoninoxime as a Vermifuge.

The *Journal de Médicine*, November 9, 1890, says that santoninoxime, according to the *Répertoire de Pharmacie*, 1890, is obtained by heating five parts of santonin with four parts of chlorhydrate of hydroxylamine and from three to four parts of chalk, in the presence of alcohol. The product is eighty for each one hundred parts by weight of santonin employed. The substance consists of silky needle-like crystals, white, insoluble in cold water, sparingly soluble in boiling water, soluble in alcohol and acetic acid. The crystals melt at 216° C. (420° Fahr.), and rotates polarized light to the left. It has been praised as a vermifuge, and may be used instead of santonin. It can be administered in doses two or three times larger than the latter substance without causing accident.

THE

MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

DISTURBANCES OF EJACULATION.

Affections of the male sexual organs, which involve, or appear to involve, the generating power of the patient, are frequently extremely difficult to treat. The cause of this is perhaps oftener to be sought in the patient himself than in the local disorder; in other words, the trouble is with the mind and general nervous system rather than with the sexual apparatus. If a man gets an idea that, as the result of spermatorrhœa, or gleet, or premature ejaculation, or some other disorder, he is impotent or sterile, it requires all the authority and tact of a wise physician to accomplish much towards his restoration to health. Confidence in the attending physician is all important. If the patient can be brought to leave the thinking about his case to be done by his physician, and get rid of his morbid self-contemplation, half the battle is won.

Quacks and physicians with more reputation than character have done much to exaggerate the significance of sexual disorders, and even those who can have no object in deceiving have spoken with unwarranted positiveness in regard to these matters. Thus Alfons Hanc, of Vienna, in an article published in the *Allg. Wiener med. Zeitung*, No. 29, 1890, declares that "a well-timed successful ejaculation of human semen is without doubt the most essential element of the act of copulation, and is almost as a rule a *conditio sine qua non* of the generating power in man." As regards the latter part of this statement, it should be remembered that the spermatozoa alone are the essential elements, so far as the man is concerned, of fecundation. These retain their motion for at least twelve hours outside the body, when the semen is kept in a test-tube, and in all probability live for several days in the secretions of a healthy vagina. There is some reason to believe, it is true, that at the height of the sexual orgasm the mouth of the womb opens, and perhaps even at such times the semen is sucked up into the womb. But the normal os that will admit a sound will certainly admit active spermatozoa at any time, and if so, what is to prevent the fecundation of an egg, if one is present? The statement of Hanc is too sweeping, and needs qualification. Coitus with ejaculation at the height of the orgasm is possible to sterile men, that is to say, men whose semen contains no spermatozoa, or only dead ones; and, on the other hand, men with varying degrees of impotence, but with living spermatozoa in their semen, are capable of begetting children.

It is quite true that perfect coitus implies successful ejaculation at the proper time, but it does not follow that without it there can, as a rule, be no fecundation. There are unquestionably distinct departures from normal ejaculation: it may occur too

soon or too late; it may occur very slowly and in drops, instead of in a jet; or it may be absent altogether. Ejaculation may be complete but be painful, or free from pleasurable sensation. Disturbance may arise also from the effect of alcohol or nicotine. But it is a great mistake to believe that these abnormalities necessarily preclude paternity. Moreover, our own belief will be reflected in the treatment of patients. Probably the most frequent abnormality of ejaculation is marked by precipitancy. There is an erection, more or less complete, and sexual desire, but before the act of coitus is completed, and sometimes before intromission of the penis, ejaculation occurs and the penis becomes flaccid. Such patients have a hypersensitive prostatic urethra, with relaxation and perhaps dilatation of the orifices of the ejaculatory ducts. They require local and systemic treatment, a considerable degree of continence, and afterwards the assurance that if they proceed with greater deliberation and less excitement and without previous dallying, coitus will be performed much more satisfactorily. If their semen contains normal living spermatozoa, they can be told with safety that there is no reason on their part why conception cannot occur. If, on the contrary, we believe that perfect coitus is almost essential to fecundation, we shall grapple with the affections in question with much less hopefulness, and the degree of hope and confidence with which we can inspire the patient will be far less. The consequence will be lack of success in treatment.

FUGU POISON.

The nature and effects of the poison of the Japanese fish, the fugu (pronounced *fungu*), have been generally overlooked by modern toxicologists, and it is only recently that they have received careful scientific study. A report of the investigations of Drs. Takahashi and Inoko, regarding fugu poison, appears in the *Deutsche Medicinal Zeitung*, July 3, 1890.

The fugu is a species of tetrodon. It is a scaleless fish, averaging about a foot in length; with a short head, a thick, round body and a spotted back. It is found principally on the west coast of Japan. Regarding the poison, Drs. Takahashi and Inoko have found that it lowers the respiration and causes its cessation, without giving rise to convulsions. In mammals the heart is not directly affected, and continues to beat for some time after the respiration has ceased. The pulse is gradually slowed; the blood pressure is lowered, and the vaso-motor centre is paralyzed, but not the peripheral vascular nerves. The cardiac inhibitory action of the vagus is at first lessened, and finally is lost. The respiratory centre is paralyzed, and convulsions cannot occur. The excitability of the peripheral motor nerve ends decreases, in mammals, and can be entirely lost in frogs. In frogs the spinal cord is paralyzed. The cause of death is evidently paralysis of the respiratory and vascular nerve centres. The effect of fugu poison upon the motor nerves is similar to that produced by curare, but the fugu poison differs from the latter in that it paralyzes also other nerve centres in the medulla oblongata.

The fugu poison is contained in the living fish, and is therefore not a product of decomposition. The poison produces no toxic effects upon fishes of the same species. Drs. Takahashi and Inoko do not state in what part of fish the poison is found. According to the belief of the Japanese fishermen the meat of the fish is entirely innoxious, the poison being contained only in the liver and gall-bladder. If these organs be removed without being broken, and without the contents of the gall-bladder coming in contact with the meat, the fish may be eaten with impunity. It is considered to have a most delicate flavor; and as many fishermen persist in eating the fish in spite of the risk, cases of poisoning are not infrequently met with. The poison is considered to be always fatal in its effects. It is soluble in

water, but very slightly so in alcohol; and it is insoluble in ether, chloroform, benzine or amyl-alcohol. It is not precipitated by acetate of lead or by any alkaloid reagents. The poison is differentiable and not changed by boiling for a short time.

From these facts the investigators conclude that fugu poison is neither a ferment, an albuminoid nor an organic base. Its chemical composition is still under investigation. Personal experience with a fatal case of fugu poisoning confirms the assertions of Takahashi and Inoko regarding the symptoms of poisoning. The case in question was that of a strong fisherman, about thirty years old. An hour before he had eaten fugu, which was supposed to have been well cleaned. When seen, he was lying upon the beach in a semi-conscious condition. The pulse was slow but strong. Respiration was greatly embarrassed; breath was taken with great difficulty and in gasps. The chest heaved violently, and the man was in a cold perspiration. Such restoratives which were at hand were resorted to, and an attempt to induce vomiting made, but in vain. Within half an hour the man was dead.

AN INSTRUCTOR IN ABORTION.

From points in the United States a thousand miles apart the Editor of the REPORTER has had sent to him, with the suggestion that it be made the subject of comment in these columns, a pamphlet, which has every appearance of deserving the severest censure. The author of the pamphlet is one whose business it is probably not best to advertise by giving his name. His pamphlet offers for sale a translation of a book by Velpeau, in which, as he states with well-chosen expressions, instructions may be found how to produce abortion in a variety of ways, some of which are "not known to the medical world," and also "valuable hints as to the best means by which evasion of the law can be accomplished when a physician is so unfortunate as to be 'suspected' of having been guilty of this step." He also says: "I don't know that the author intended it for a lesson when he explained how abortionists scientifically bleed their patients; be that as it may, he certainly lays bare the road to a fortune for any one desiring to follow this questionable practice."

Our correspondents evidently think this pamphlet a cunningly-devised scheme for securing purchasers of a book of instruction in a practice scorned by decent men and condemned by moral men both in and out of the medical profession. This opinion seems reasonable to us; and we hope, if the seller of it be the scoundrel that he may be suspected of being, that a way may be found to bring him to justice.

At any rate, we are glad to have evidence that readers of the REPORTER turn to it for sympathy and assistance in exposing wrongdoing; and we assure them that they will always have both. An experience of nearly four years has demonstrated the fact that infallibility does not fall upon one's shoulders with the editorial mantle; but an honest purpose to do right and to hate evil every one may hope to have—and hope also that it will make up for some errors of judgment.

A PHILADELPHIAN'S DEATH UNDER THE KOCH TREATMENT.

Rudolph Long, about 25 years old, of 2637 North Ninth street, this city, recently went to Berlin to place himself under Prof. Koch's treatment for the cure of consumption. On Monday morning, December 15, the family received a letter from their son telling them that he had succeeded in obtaining admission into the hospital and was receiving treatment. On December 16 we received information that the man had died on December 14.

As far as we know this is the only patient who went to Berlin from this city for Koch's treatment. The case was not an advanced one of tuberculosis, although the symptoms were well marked.

Book Reviews.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the Reporter.]

EPILEPSY: ITS PATHOLOGY AND TREATMENT. By Hobart Amory Hare, M. D., B. Sc., Clinical Professor of the Diseases of Children and Demonstrator of Therapeutics in the University of Pennsylvania, etc. Small 8vo, pp. 228. Philadelphia and London: F. A. Davis, 1890. Price, $1.25.

This volume is No. 7 in the Physicians' and Students' Ready Reference Series, and is the essay for which a prize of four thousand francs was awarded to Dr. Hare by the Royal Academy of Medicine of Belgium, December 31, 1889.

The author records and appears to adopt the view developed especially by Hughlings-Jackson, Ferrier and Horsley, that epilepsy arises from a disturbance in the cerebral cortex. As to treatment, the book reports nothing new, so far as the use of medicines is concerned. Dr. Hare thinks the bromides the best general remedies, but speaks as though antifebrin might be of service.

The essay is an interesting review of the knowledge of epilepsy, past and present, especially from a physiological and pathological point of view, but it is a sad commentary on the state of knowledge in regard to it, that the profession should still be so powerless to combat it successfully.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Fifth Session, held at Washington, D. C., May 13, 14 and 15, 1890. Volume V. 8vo, pp. xxiv, 275. Philadelphia: Printed for the Association, 1890.

The present volume contains nineteen papers on medical subjects, all of them of a high degree of excellence. We desire to refer particularly to the paper of Dr. William T. Lusk on "Antisepsis in Midwifery," because it is a late utterance by a recognized authority on obstetrical procedures, and because of the importance of its teaching. After speaking of the great lessening in the mortality and morbidity from puerperal diseases which has followed the employment of antisepsis in labor cases, he details the method used in Bellevue Hospital. This consists essentially in preventing anything septic from getting in range of the woman. During child-bed no vaginal douches are given—they are given before it. The following sentence merits quotation: "The occasional appearance on the scene of an individual who uses his 'common-sense'—*i. e.*, one who does not believe there is any harm in witnessing an autopsy, or in visiting a companion in the erysipelas ward, or in holding the pus basin in an operation for pyothorax—is almost certainly followed by temperature elevations, which add fresh testimony to the efficacy of a rigid observance of antiseptic regulations." True midwifery antisepsis, Dr. Lusk says, "consists not so much in douching as in furthering physiological processes. Under normal circumstances a proper handling of the patient in the third stage of labor will effect more in the way of prophylaxis than Niagara. When, however, hands or instruments are introduced into the uterine cavity, the case is different. It would be hardihood then not to precede the operative measure by thorough vaginal disinfection." Dr. Lusk believes in the employment of the douche in fevers resulting from the absorption of toxine due to the putrefaction of clots, membranes and bits of placenta within the uterus; but he says it is to be remembered that this is a clumsy attempt to remedy the results of past remissness and that his own opinion is that the intra-uterine douche in child-bed is not indicated except when there has been slovenly help rendered by the attendant at the time of childbirth.

When the douche is to be used, Dr. Lusk employs first a vaginal douche, and, for intra-uterine injection, bichloride solution of a strength of 1 to 3,000, injecting not more than a quart. After the douche, he strongly recommends the introduction of an iodoform pencil containing two and one-half drachms of iodoform.

These quotations indicate sufficiently, without further comment, the thoroughly defensible position occupied by Dr. Lusk on the question of antiseptic midwifery. In most cases it is necessary because there has been neglect in keeping the woman and her surroundings in an aseptic condition.

A DICTIONARY OF PRACTICAL MEDICINE BY VARIOUS WRITERS. Edited by James Kingston Fowler, M. A., M. D., Fellow of the Royal College of Physicians, etc. 8vo, pp. xxvi, 942. Philadelphia: P. Blakiston, Son & Co., 1890. Price, Cloth, $5.00. Half Morocco, $6.00.

This is a dictionary and a concise treatise on the practice of medicine in one. Authors of well-known reputation have contributed the descriptions and written the articles upon subjects with which they are familiar. The result has been the production of a book of a high order of excellence. It is impossible in our space to review such a book and do full justice to it. One feature of it, however, is deserving of special mention: when diseases are treated of, the symptoms, diagnosis, pathology and treatment are all given. This makes the dictionary very much more valuable for students, while it is easy for those who do not desire to study any particular part to skip it. We can cordially commend the book to our readers as trustworthy and well up to the times.

PASTEUR AND RABIES. By Thomas M. Dolan, M. D., F. R. C. S., Edin., author of *The Nature and Treatment of Hydrophobia*, etc. Small 8vo, pp. ix, 83. London: George Bell & Sons, 1890.

Some one has said that nothing lies like facts, unless it be figures. In looking over this little brochure the conclusion is inevitable that some one is guilty of wilful deception, or else belongs to the class of persons once wittily described by Sir James Paget, as those "who would not for their lives tell a lie, yet who all their lives have been utterly unable to tell the exact truth." Dr. Dolan is an opponent of Pasteur and of anti-rabic inoculations. In his preface he quotes a letter received from Prof. Peter, of Paris, who declares that the mortality from hydrophobia in France has increased since Pasteur began his work, and that the latter is in the position of a physician who, when consulted by a patient with small-pox, should insert a second dose of the variolous poison in order to subdue the force of the first. The report of Dujardin-Beaumetz in his capacity of Health Officer in the Department of the Seine, shows that from 1882 to 1885, the four years before Pasteur's method was employed, the number of deaths in Paris was 38, while in the following four years, under his method, it was 37. Dujardin-Beaumetz ends his report by saying: "As Pasteur's treatment does not prevent the persistence of hydrophobia, we must still depend upon . . . the killing of

every dog which has been bitten by a rabid animal." Dr. Dolan tabulates 90 cases of death after treatment by Pasteur, in France, from November 1, 1885, to November 30, 1889.

It is evident from his book and from the opinions of others whom he quotes, that the day is passed when statistical statements emanating from Pasteur and his Institute will be accepted without close scrutiny, to see in how much they bear the construction put upon them and in how much they are consciously or unconsciously misconstrued.

New Remedies and Appliances

[In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.]

Pavara Pills.

A specimen vial of Pavara pills, sent here by C. L. Topliff, of New York, contains a lot of oblong, gelatin-coated pills which are, as the label states, tasteless—that is, if soon swallowed; although the solubility of the coating is shown by the promptness with which the moderate bitterness of the ingredients is perceived if one of the pills is held in the mouth for a few seconds.

These pills have in our observation—which antedates considerably the receipt of the specimens—fully justified the claim of the manufacturer that they are both efficient and pleasant in the treatment of constipation, and we feel that it is safe to expect others who prescribe them to be well satisfied with their effects.

Correspondence.

What shall we do with our Pelvic Inflammatory Cases?

To the Editor.

Sir: Dr. Anna M. Fullerton has recently contributed a second paper to this subject in the *Annals of Gynecology*, for November, 1890, the first paper having appeared in the Medical and Surgical Reporter, August 16, 1890. In both papers Dr. Fullerton quotes liberally from my writings and statements respecting the value of electricity in chronic pelvic inflammations; and, though I am preparing for publication a careful review of this subject, with abundant proof, it is necessary for me to point out at once the inherent weakness of the conclusions of her second paper, which were reproduced in your last number.

As an apparent basis for her conclusions, the paper in the *Annals* contained a list of 27 cases of operations for pelvic disease. In this list only five cases had had electrical treatment—presumably of the kind available at the hospital of the Woman's Medical College. Of these five, three were cases of ovarian cysts, in which the use of electricity is universally condemned as useless. Of the other two cases one (No. 1 in the list) appears to have been treated two months with electricity and rest. At the operation "sclerosed" ovaries and inflamed tubes seem to have been removed. This patient did not die from the operation, but there is a singular and most eloquent silence as to its result on the pain of which the patient complained. The other case (No. 17) was one of hemorrhagic fibroma, in which a few treatments were said to have been followed by pelvic peritonitis—which may have been due to the bad technique prevailing in the clinic, as no mention of pus is made.

With one exception, therefore, this list of twenty-seven cases has no bearing whatever on the value of electricity in the diseases for which it has been recommended.

Before dismissing this list it may be of service to look at it more closely. In the series were twenty-three cases of amputation of the uterine appendages. Results: two deaths; twenty-one sexless women; and but two cases in which relief of symptoms after operation is noted. Both of these cases (Nos. 5 and 7), moreover, had other conditions than inflammation present, one being a simple and the other a dermoid cyst of the ovary.

Aside from the charge of ignorance on the part of electro-gynecologists, which Dr. Fullerton prints in cold type, the remainder of both papers is merely the advancement of a plea that abdominal section should always and invariably replace electricity and other conservative measures in the treatment of pelvic diseases, because without section no one can make a diagnosis. If this view were not so frequently expressed just now, it would be regarded as most remarkable. The same procedures among the doctors of the body politic would render courts and juries unnecessary and the one "panacea" of the suspected as well as the real diseases of society would be the hangman.

If electricity is stigmatized as a pretended panacea, what shall universal and purposeless abdominal section be called? Dr. Fullerton's vivisectional experiments lead her to think that any doubtful case may present either a

salpingitis, ovaritis, salpingo-ovaritis, hydrosalpinx, hemato-salpinx, abscess of tube or ovary, small dermoids, extra-uterine pregnancy, etc. I should like to ask if there is not one pathological process and one only underlying all of these conditions, except the last two? Wherever it is situated, the patient is suffering from an inflammation, and the aim of the scientific physician is to subdue it, whether situated on this side or that side of a certain tissue or membrane. Owing to the chemical and vital changes produced in living flesh by the galvanic current, it is a most efficient agent in the promotion of healthy action in sub-acute inflammations, especially when the physical laws governing its transmission permit us to pass a sufficiently dense current through the diseased part. Its very efficiency in arousing dormant tissue vitality contra-indicates its use in the advanced stages with purulent formation—at least unless a free exit to the pus is also arranged for. There is no question of the value of differential diagnosis between simple inflammatory conditions on the one hand and purulent collections and cysts on the other; but to perform a bloody and dangerous operation for the sake of knowing if an inflammation is on the inside or outside of the Fallopian tube is like splitting hairs with an axe. Electricity itself is a valuable means of differentiating these two groups; for, if the symptoms of a case are aggravated by it, the existence of an abscess may be diagnosticated with reasonable certainty. Unless gross carelessness is betrayed, this intensification of the symptoms is but evanescent.

It is idle to speak of "electricity" as dangerous. Any tyro who is capable of bridling this potent agency may practice vaginal applications, though no one but an expert should pass an electrode or anything else within the cavity of the uterus. Electro-punctures and intra-uterine applications demand, like surgery, the possession of skill and experience on the part of operators. As to the prevalence of accidents from the use of electricity, it is notable that no proof of the statement is given by Dr. Fullerton, though it is easy to believe that such results may exist in a hospital in which this work is relegated to unskilled assistants, who are hampered by inadequate facilities and frustrated by a constant drain of the best material to supply the tables of ambitious operators. Electrical work that demands uterine sounding partakes, of course, of the well-known risk of that procedure, though it is my conviction that a mild galvanic current renders a sound less noxious than when the latter is used alone. Fortunately, the use of electricity is not restricted to this method, notwithstanding its usually preponderating efficiency. Danion and Championnière have even advocated a vaginal method in the treatment of fibroids.

It is to be regretted that Dr. Fullerton, in alluding to Dr. Bradford's paper on certain cases treated by me, which appeared in the *Annals of Gynecology*, March, 1890, confined herself to his somewhat ambiguous concluding words. If she turns to the body of the paper, she will find that the notes prepared by Dr. Bradford, with the critical assistance of Dr. J. M. Baldy, showed the following conditions in the cases after a year's interval:

Cured permanently, 5.
Improved permanently, 3.
Improved temporarily, 3.

Such was the verdict agreed upon as to the condition of these desperate cases at the expiration of a year from their original report, the jury consisting of two surgeons and one electrician. Facts thus arrived at are worth mountains of opinions, and I would suggest to Dr. Fullerton the adoption of a similar method of studying the *ultimate* results of the cases she reports.

Dr. Fullerton presents in both papers some observations on the relative value of old maids and ovaries. As to the latter, I beg leave to submit that an unmarried woman is not a competent judge. Until women engaged in rearing families, and more especially their husbands, decide that these organs are useless I shall continue to urge that all means be exhausted before their removal is decided upon; and I think that both common sense and public policy will sustain me.

Yours truly,
G. Betton Massey, M. D.
Philadelphia.

Anencephalous Monster.

To the Editor.

Sir: On October 22, 1890, we were called to attend Mrs. S., who was reported as being in labor for the past twenty-four hours. On examination we found the patient very nervous, with cold feet and hands and very feeble action of the heart. The first stage of labor was not over, and there was a face presentation. On inquiry, we found Mrs. S. to

be 39 years old, a multipara, of nervous temperament, very much emaciated, having suffered pain for three months previous, for which she claimed to have taken four grains of morphia daily. She had taken no morphia for the past two days, thinking it would interfere with the progress of her labor. We gave her some morphia hypodermically and then the labor progressed very rapidly, and terminated in three or four hours under the combined use of morphia and chloroform.

The fetus was a boy, weighing six pounds and fully developed, with the exception of the head, which is sunken between shoulders and has neither forehead nor vertex, the vault of the skull and the brain being entirely absent. The base of the skull was surmounted by a blood tumor. The face was livid and over-developed, and was directed obliquely. The nose was large and flattened, the eyes projecting and the mouth open. The child lived twenty-two hours, during which time it had tonic and clonic convulsions.

The mother attributed the abnormality of her child to seeing a drowning hog, which was taken from the water and its brains knocked out in her presence.

Yours truly,

DRS. LUCAS & PANKAKE.

Alma, Arkansas.

NOTES AND COMMENTS.

Treatment of Enlarged Prostate.

In the *American Journal of the Medical Sciences*, November, 1890, Dr. W. T. Belfield has a paper on "Operations on Enlarged Prostate" in which he says:

An estimate of the value of radical operations must be based upon a comparison with the results of simple drainage of the bladder; since the latter is included in the former and alone secures cessation of existing cystitis, subsidence of the congestive œdema of the prostate, and an improvement —more or less temporary—in the evacuation of the bladder. The radical operation should accomplish more; it should restore voluntary and complete urination in the individual who has long been largely or entirely dependent upon the catheter. For this estimate many of the 133 reported cases are useless; for in some the previous and subsequent history is not recorded; in others the operation was made for acute retention without previous dependence upon the catheter (where simple drainage would have afforded relief); and in a third class the prostatic enlargement was complicated with a calculus, to whose removal the recovery of the vesical function might be largely ascribed. Excluding these, there remain 41 cases wherein the catheter was indispensable for periods varying from several months to seven years prior to operation. In 32 of these 41 voluntary urination was restored and maintained during the period of observation, varying from a few months to two years; in only few is it, however, definitely stated that the evacuation of the bladder was complete as well as voluntary; in several, residual urine was noted and the daily passage of the catheter was advised as a precautionary measure. In 9 of the 41 cases voluntary micturition was not restored. As elsewhere observed, it seems probable that the failure in some of these was due to incompleteness of operation.

The abstract utility of prostatectomy is as yet clinically restricted by the fact that so many patients requiring the operation are, when they reach the surgeon, too feeble to endure it. For this reason Dr. Belfield has refused to advise the operation in several cases; he made simple drainage by perineal urethrotomy in five (with one death); and in four others (two fatal), in which the supra-pubic incision was imperative for the extraction of a calculus, he declined to interfere with prostatic tumors whose removal presented no mechanical difficulties—simply because the enfeebled condition of the respective patients forbade all operative measures that were not absolutely necessary for immediate relief. In time patients will be educated to the knowledge that danger lies not in the operation but in the delay whereby the urinary organs are disorganized.

The various operations mentioned represent as many stages in the development of surgical conceptions as to the nature and accessibility of the prostatic obstacle. The operations of Mercier and Bottini may, doubtless, by a happy chance, secure occasionally complete success, though inapplicable to most cases; perineal incision and excision of prostatic obstructions have a wider range of usefulness, seriously restricted, however, by the mechanical difficulties in the detection and removal of the common intra-vesical growths; supra-pubic cystotomy affords satisfactory access to these frequent tumors, but sometimes fails to clear

the obstructed urethra; the combined supra-pubic and perineal approach seems alone to fulfil every indication in every case. There is, therefore, from the anatomical standpoint, no choice of operation; supra-pubic cystotomy, with or without a supplementary *boutonnière*, as the peculiarities of the prostate in a given case may require, is in the abstract *the* operation. Yet the interests of the patient will, doubtless, sometimes be better served by a compromise with the requirements of his prostate; perineal prostatotomy is perfectly free from anatomical dangers, and, because so quickly completed, involves less peril from the anæsthetic. It is, therefore, safer (mortality 9 per cent. against 16 per cent. by supra-pubic prostatectomy); it affords temporary relief in all cases and a radical cure in a fair minority—for which reasons it should, in the writer's opinion, be the operation of choice in feeble patients.

As to the technique of supra-pubic cystotomy, the Petersen rectal bag has been quite largely abandoned and the modified Trendelenburg position adopted for eliminating the peritoneal fold from the field of operation. The transverse incision of the soft parts and Helferich's partial resection of the symphysis seem to be regarded as unnecessary features. The extreme distention of the bladder, formerly considered an essential safeguard, is no longer practiced, since with the patient in the inclined posture an almost empty bladder can be opened with safety.

An important advance in the removal of prostatic obstruction is the enucleation of all accessible masses in the substance of the organ instead of a simple levelling off of projecting tumors with scissors or cautery; by this means not only the salient middle lobes, but also the no less obstructing, though less obtrusive lateral enlargements, are easily removable. This process of enucleation obviates the necessity for the operation suggested by Dittel, under the title of "lateral prostatectomy."[1] After emphasizing the importance of the neglected lateral lobes in the induction of retention, and criticising Harrison's plan of treating them by prolonged pressure as inefficient, Dittel shows that they can be reached by separation of the rectum from the prostate; and by operation upon a cadaver with lateral enlargement of the prostate, he proved that the excision of portions of the lateral lobes from the rear—without opening the bladder—relieved the prostatic obstruction by permitting the vesical surfaces of these lobes to fall apart. He admits that supra-pubic cystotomy would also often be necessary for the removal of intra-vesical obstacles; and that the two operations, even if separated by an interval of weeks, would rarely be sustained by the same subject until patients are educated to submitting to them at an early stage of prostatic disease.

Dittel makes no allusion to the fact that the lateral lobes can be and have repeatedly been removed by enucleation after supra-pubic cystotomy. Of the several surgeons who have independently adopted this measure McGill deserves especial mention; in several instances he has enucleated lateral masses weighing from one-half to two ounces. The ingenious operation suggested by Dittel seems, therefore, to have been anticipated by a much simpler, safer and more practicable means of attaining the same end.

Prolonged retention of a tube in the perineal wound, as advised by Harrison, has been attended in his and other hands with one unpleasant result—the persistence of a permanent and obstinate fistula.

Wishard, of Indianapolis, has successfully practiced a means for obviating this objectionable sequel: When the tube is finally removed he curettes the granulating surfaces, incises the anterior and posterior angles, and closes the entire wound by sutures, drawing the urine by catheter for several days. By this means he secured immediate and complete union after drainage for periods up to eighty-one days.

[1] *Wiener med. Woch.*, No. 19, 1890.

Castration for Mollities Ossium.

The *British Medical Journal*, Nov. 1, 1890, says editorially:

Of all the more serious impediments to labor, none can be graver than the pelvic deformity produced by mollities. The disease itself is most distressing over and above its ill effects on the genital canal. No doubt as far as fatality is concerned, it is as bad to die after labor delayed through rickety deformity as to perish in the same manner when mollities is the source of pelvic malformation. A rickety pelvis, however, causes little trouble except during labor. It is not incompatible with health, strength and beauty. Mollities, on the other hand,

always involves impaired health, it also cripples and disfigures the unhappy patient. Rickets cannot be made worse by pregnancy. Mollities, on the other hand, is not only aggravated by gestation, but tends to advance at each menstrual period. This fact, associated with the now frequent practice of removal of the appendages for chronic inflammatory disease, has set authorities thinking about the justifiability of that practice for the cure or check of mollities. To remove the ovaries lest a woman should bear more children is in any case questionable and under many circumstances almost criminal. To remove them in order to check a grave disease seems, on the other hand, quite justifiable. The practice entails sterility, but not as a direct aim; barrenness is simply an inevitable result as after double ovariotomy.

Drs. Fehling and Truzzi have carried these principles into practice and each of these obstetricians communicated the results of their practice to the Section of Obstetrics at the Berlin meeting of the International Medical Congress last August. Fehling, of Basel, has removed the ovaries nine times with the object of remedying mollities. The first operation was performed nearly four years ago. Eight of the cases recovered, and the progress of the disease was checked. One died from obstruction, through adhesion of the intestine to the uterus which had been fixed to the parietes—a warning, by the way, to those who practice hysterorrhaphy. Truzzi, of Milan, has operated twice, both patients recovering. The second case was non-puerperal; it is noteworthy that though the ovaries appeared healthy, a small sarcomatous area was found in the left, which was slightly enlarged. Fehling noticed unusual vascularity of the appendages in his cases, the arteries being enlarged as well as the veins. He found no characteristic miscroscopic changes in the ovaries. He noted a marked aggravation of the symptoms at each menstrual period, as a distinct feature in the previous histories of his patients. The steady diminution and ultimate cessation of the characteristic pains in the bones was one of the most satisfactory results of operation. Women with mollities are, as a rule, prolific; Dr. Fehling considers that this fact indicates abnormal activity of the ovarian functions. Still, the disease has been known to progress for many years in women who bore no children during that space of time; some cases of the kind were operated upon by Dr. Fehling, with the result that the mollities ceased to progress. That authority believes that the ovaries exert a reflex action on the vaso-dilators of the vessels of the bones, causing passive hyperemia followed by active absorption of the bone salts. Removal of the ovaries removes the exciting cause, so that the disease makes no further advance. It cannot be denied that Drs. Truzzi and Fehling have justified their bold proceeding, and the practice of excision of the ovaries for mollities ossium bids fair to become an established operation. Fortunately, opportunities for performing it will be rare in this country, the disease being very infrequent in the British Isles.

Operation for Cleft Palate.

Mr. Davies-Colley, Surgeon to Guy's Hospital, has published in the *British Medical Journal*, October 25, 1890, an interesting and well illustrated paper, in which he describes an operation for cleft in the hard palate, for which he makes the following claims.

1. There is less hemorrhage, for on the one side of the palate very few vessels are wounded, while on the other side the incision does not extend as far back as the foramen for the large descending palatine artery; and in dissecting back the triangular flap, it should be remembered that all the vessels which are divided are exposed to view, so that their orifices can be readily compressed by the sponge.

2. The parts can be cleanly dissected back, without so much bruising as is necessary in the ordinary operation.

3. Nothing is cut away.

4. There is very little tension after the operation. The flap lies loosely in its position, so loosely that I have often had misgivings that it would not unite; and as there is no pull upon the sutures they do not ulcerate through, and may be left for five or six weeks after the operation. This gives an opportunity for the flap to unite by granulations if union by the first intention has failed.

5. He has never observed any tendency to sloughing in the flap.

6. The upward pressure of the tongue, which so often causes separation of the flaps when the ordinary operation has been performed, especially in young children, is here beneficial. When the mouth is closed it acts as a splint to keep the flap in its proper

position, and press it firmly against the raw surface upon the other side.

7. The bridge is a very strong one, consisting as it does of two layers of muco-periosteum united by their raw surfaces.

8. This operation can be performed with success at a much earlier period than the ordinary operation. It is easy by these means to firmly unite clefts of the hard palate in infants between the age of one and two years. This is a great advantage, not only with respect to the mastication of food and the learning to talk, but also in diminishing the deformity of the face, the broadening of the bridge of the nose and the separation of the cheek bones, which are so often noticed in these patients.

Mr. Davies-Colley says the disadvantages of this method are: (1) the hard palate alone is united; (2) a foramen is generally left at the front part of the cleft. This, however, either tends to disappear, or can be closed in later life.

He has endeavored to unite the sides of the soft palate at the same time, but without success. On the other hand, it should be remembered that by securing a firm union of this kind in early life between the palatal processes of the superior maxillæ and palate bone the sides of the cleft in the soft palate are approximated, and that they may be easily united a few months later. In the young children upon whom he has operated he has found considerable difficulty in subsequently uniting the front part of the cleft of the soft palate, while the posterior two-thirds or three-fourths are readily brought together. In two patients over the age of 12 he found no difficulty in closing the gap thus left.

In conclusion, Mr. Davies-Colley strongly recommends this operation for the consideration of surgeons: 1. In the cleft palate of infants. 2. In patients on whom the ordinary operation for cleft of the hard palate has failed. 3. Where the separation of the sides of the hard palate is too great to be bridged over by the ordinary operation.

Caustic Lime for Purification of Sewage Water.

The *Engineer and Building Record*, November 15, 1890, says:

Dr. H. Weigmann, of Kiel, Germany, contributes to the *Gesundheits-Ingenieur* an interesting article on the above subject. In the pamphlet of foreign abstracts of the British Institution of Civil Engineers, the following resumé of it is given. While admitting that the purification of sewage water by means of irrigation is the more perfect system of treatment, Dr. Weigmann points out that in certain cases some chemical process has, for various reasons to be employed. Notwithstanding the numerous substances which have been proposed, lime still holds the foremost place. The caustic lime combining with the carbonic-acid gas, a product of decomposition always present in sewage water, yields a bulky precipitate of calcic carbonate, which mechanically entangles the suspended impurities and effects a rapid clarification.

Recent experiments respecting the action of lime have shown this substance to possess such excellent disinfecting properties that it seems that the lime treatment is among the best of the precipitation processes. As one result of the use of lime, it is pointed out that the substances in solution are thereby invariably increased rather than diminished in quantity, though the recent researches of Schreib tend to controvert this theory. In order to arrive at accurate conclusions, careful estimations of the amount of chlorine in the sample, both before and after treatment, are advisable. Dr. Weigmann's experiments have led to the conclusion that from the clarified effluent after the lime treatment there is a considerable evolution of ammonia and other nitrogeneous gases, and he states that though water which has been rendered so strongly alkaline as to destroy all the bacteria therein cannot decompose so rapidly as water teeming with bacteria (which are the active exciters of putrefactive changes), there can be no doubt that, owing to the dissolved lime, an important change takes place in the condition of the organic substances in solution. Dr. Weigmann insists upon the necessity for a rapid separation of the sludge from the water in order to put an end to the changes which take place in the organic matters entangled with the calcic carbonate, and points to the advantages, on chemical grounds, of passing the sludge through a filter-press, as soon as possible after deposition, as is done, for instance, in the works at Halle.

In addition to its powerful action in destroying the bacteria and germs of every kind, there can be no doubt that lime is a strong disinfectant. The tendency of alkaline sewage water, after it has, by means of carbonic-acid gas in the atmosphere or in the river

water, parted with its dissolved lime, is to become again rapidly charged with bacteria; but these are by the self-purification powers of running water speedily rendered innocuous or converted into the food-stuff of water-plants, and it is pointed out that the previous lime precipitation has removed all the germs of a pathogenic character, and the new growth of bacteria are probably of a non-dangerous character.

Ligation of Uterine Appendages for Hemorrhage from Myoma.

Dr. Michael Beverley reports in the *British Medical Journal*, November 1, 1890, the case of a woman 34 years old admitted to the Norfolk and Norwich Hospital, April 5, 1890, for profuse menorrhagia.

On examination a swelling could be felt externally, about the size of a cricket ball, in the left hypogastric region; it was movable and painful. External examination produced rather profuse loss. A tumor could be felt by vaginal and rectal examination; it moved with the uterus, which admitted the sound to 2½ inches. Diagnosis of uterine fibroma was made. The patient, who was anemic and weak, complained of bearing down, and some difficulty in defecation. She had been twice married and had had one child and several miscarriages. Her second husband died twelve months before her admission, so that she had to earn her own living. This had been lately impossible owing to constant uterine hemorrhage.

At a consultation of the staff Dr. Beverley proposed removal of the appendages; this was assented to, and was attempted April 30. The ovaries were, however, found to be so firmly bound down by adhesions within the pelvis that their removal appeared to be almost impracticable; consequently the operator raised the uterus partly out of the abdominal incision, and applied two ligatures round the Fallopian tube and broad ligaments on each side, close to the uterus, and divided the tubes between the ligatures. The operation was performed under the carbolic spray.

The patient made a rapid and uninterrupted recovery. Her only complaint fter the operation was pelvic pain, which required the use of hypodermic injections of morphine to allay it. The temperature chart was very even, 99.50° F., being the maximum. There was no uterine hemorrhage nor discharge after the operation; and she left the hospital quite well, on May 24, twenty-four days after the operation. Her medical adviser, Mr. Shann, of Lowestoft, informed Dr. Beverley, in July, that up to that date she had had no recurrence of her symptoms and remained well.

This case is recorded for the purpose of eliciting an expression of opinion, for future guidance, under similar circumstances. Removal of the appendages for the arrest of uterine hemorrhage in fibromyomata of that organ is now become a recognized mode of treatment (in otherwise suitable cases). In most provincial hospitals, every now and then, must occur cases similar to this now recorded, in which the removal of the ovaries appears to be almost impracticable to the ordinary hospital surgeon. What in these cases do the specialists recommend? Are the ovaries to be pursued to their hiding places and shelled out of their nests? or is it sufficient to ligature the tubes as I elected to do in my case? And, if so, what will become of the cut off ovaries; and what chances has the patient of ultimate cure?

Double Uterus and Vagina.

In the *Bolnitchnaia Gazeta Botkina*, No. 42, 1890, p. 986, Dr. Vladimïr A. Vasten, of St. Petersburg, publishes an account of a rare and interesting case of double uterus and divided vagina, in which a surgical interference became necessary.

A merchant applied to the writer with complaints of his wife being sterile and incapable of sexual intercourse. The patient, a somewhat anemic and thin, but regularly-made woman, twenty-five years old, had begun to menstruate after her sixteenth year. The catamenia recurred regularly every four weeks, and lasting three or four days, but were always accompanied by abdominal pain and of late by hysterical fits. She had married at eighteen, any attempt at coition proving invariably unsuccessful and exceedingly painful. On examination, the external genitals were found to be developed quite unusually; but the vagina was double, being divided by a septum one-half inch thick from the vaginal inlet up to the fornix. A portion of the partition below was detached from the posterior vaginal wall at the distance of three centimeters. It had been torn off during initial attempts at sexual intercourse, the woman having had profuse hemorrhage for the first three months of her marital life. The vaginæ had a normal

length, but were rather narrow, the introduction of a Ferguson speculum two and one-fourth centimeters in diameter causing pain. In each vagina there was present a small-sized uterine cervix with a very narrow circular external os, discharging an abundant viscid and turbid mucus, the uterine bodies deviating laterally at the level of the inner os, the left womb measuring eight and the right eight and one-half centimeters in length. As repeated examination showed, the wombs were menstruating simultaneously and equally abundantly. Both the husband and wife expressing an ardent wish to get rid of dyspareunia and to improve the chances of conception, Dr. Vasten excised the whole septum, except a small crescent-shaped flap between the cervices, and closed the wounds with interrupted silk sutures. Hemorrhage was but trifling. For a day the patient had obstinate vomiting, but otherwise the after-course was most satisfactory. On the ninth day the woman got up; on the tenth the sutures were removèd, the wounds healing by first intention, except a small area, which suppurated. On the fourteenth the woman was discharged quite well. When seen some while afterwards, she was in high spirits; coition and the catamenia had become normal and the hysterical fits had ceased to occur.

Dr. Vasten adds that this is a third case of double womb and vagina, seen by him during the last twenty years. None of the patients were aware of the defect, notwithstanding their having been previously examined by various gynecologists. On the whole, Dr. Vasten believes that the anomaly in question occurs far more commonly than is usually supposed.

Tea a Cause of Cold Feet.

Mr. Hutchinson says in the *Archives of Surgery*, July, 1890, that he once advised a lady to drink more tea. "I cannot touch it," was her reply. "It makes my feet icy-cold, and wet with cold perspiration." On further inquiry, she assured Mr. Hutchinson that she was quite certain of her facts, and had often tested them. She thought that the perspiration was usually of the soles chiefly. Her hands were, she thought, also made cold, but not so definitely as her feet. Mr. Hutchinson says he had long been familiar with the fact that tea made the feet cold, but did not know that cold perspiration attended it. It does not do so in all persons. The coldness is caused, he believes, by contraction of the arteries, for the feet at the same time shrink. Alcohol has usually a precisely opposite effect.

Elder Bark as a Diuretic.

The *Chemist and Druggist*, November 8, 1890, says that flowers, fruit and bark of the elder-tree (*Sambucus nigra*) have had a reputation from a very early time for their diuretic properties, but for many years they have been little used. Recently, however, several Continental physicians have been experimenting with the fresh inner bark in chronic Bright's disease, acute nephritis, and other complaints, using a sweetened decoction of the drug. In most cases there was distinct improvement, and the diuresis produced was copious.

RESOLUTIONS.

IN MEMORY OF RICHARD J. LEVIS, M. D.

At a meeting of the Faculty of the Philadelphia Polyclinic and College for Graduates of Medicine, the following preamble and resolutions were unanimously adopted.

WHEREAS, The Divine Ruler of the universe has seen fit to remove from among us Dr. Richard J. Levis, our friend and colleague; therefore be it.

Resolved: That not only in the Emeritus Professor of Surgery of the Philadelphia Polyclinic, but the whole medical profession has lost an honored and faithful co-laborer; and the community has cause to mourn a skilful and learned physician and honest and sympathizing friend.

Resolved: That by his kindness of manner, by the thoughtful interest which he always manifested in the younger members of the profession, by his encouragement, his earnestness and his example, he had endeared himself to all, and that we fitly honor and cherish his memory. We must emulate his zeal and vie with each other in carrying forward the great work in which he was so ardently engaged.

Resolved: That we tender to his family, in this sad hour of affliction, our heart-felt sympathy.

Resolved: That these resolutions be handed to the family of our beloved colleague and to the medical journals.

(Signed) THOS. J. MAYS, *President*,
S. SOLIS-COHEN, *Secretary*.

MEDICAL AND SURGICAL REPORTER

No. 1765. PHILADELPHIA, DECEMBER 27, 1890. Vol. LXIII.—No. 26.

Clinical Lectures.

CLOSURE OF VULVA FOR VESICO-VAGINAL FISTULA.—FIBROID TUMORS.

BY WILLIAM GOODELL, M. D.,

PROFESSOR OF GYNECOLOGY, UNIVERSITY OF PENNSYLVANIA.

Closure of Vulva.

Gentlemen: This woman had her first labor twenty-five years ago, and is now fifty years old. She lived then in the country, and was four miles from the nearest physician. She fell into labor—her first and only one—with a shoulder presentation. Much delay took place before the doctor reached her side, and then he found that the waters had escaped, and the shoulder was so jammed down that he could not perform version. He sent for help, and two brother physicians came to his aid; but they also found it impossible to turn the child and deliver the woman. By this time many hours had elapsed, and while they were debating the propriety of performing embryulcia, the child was turned and delivered by the rare mechanism of spontaneous evolution. Of course the child was dead; but that was not the only misfortune; for the bladder and the surrounding pelvic tissues and organs had been so seriously compressed as to cause sloughing of the womb, the whole base of the bladder, the entire track of the vagina, and all of the urethra. The vagina nearly closed up by cicatricial contraction and the urine was constantly dribbling from her person, making her very raw, bad smelling and miserable. She consulted eighteen physicians; but nothing could be done for her. Finally she came to me in 1877; and I performed the following operation with her consent, telling her that I did not know whether it would succeed or not. It consisted in making an opening between the vagina and the rectum—in other words, a recto-vaginal fistula. Then I closed up the whole vulvar opening, and thus converted the rectum into a bladder. At first the rectum so resented the presence of the urine, that she had to pass her urine every few minutes, and I was afraid that I would be compelled to reopen the vulva. But finally rectal tolerance took place, and she became able to hold her water in the rectum for six hours at a time.

For thirteen years she got on very well; but a few months ago, probably through something undigestible which she had swallowed—perhaps a bone—a small fistulous opening occurred near the arch of the pubic bone, from which the urine dribbles. So she has come to-day to have it closed up. She is an opium-eater, and she looked so pale that I had her urine examined. Much albumin was found; but whether it is secreted from her kidneys, or comes from the admixture of feces in her urine, I cannot say. But we shall take additional precautions while administering the ether; for ether is obnoxious to diseased kidney, especially when caused by compression from large tumors; and we may then have arrested secretion as a result. Under such a circumstance, namely, the presence of a large tumor, I usually give chloroform.

The operation to-day will consist in simply freshening the sides of the sinus, and then bringing the raw edges together. My assistant has just syringed out the fistulous track with a 1 : 2,000 sublimate solution, preparatory to the operation. But he forgot that the vagina communicates with the rectum, and that this antiseptic solution, while quite harmless in the vagina, is capable of doing much mischief in the rectum. So we wash out the rectum with large quantities of water, and thus get rid of the danger of having the poison absorbed.

This episode reminds me of another,

which filled me with great anxiety at the time, but at which I can now laugh heartily when I think of it. Early last summer I removed a malignant growth from the cervix uteri of a woman and ordered daily douches of a 1 : 2,000 solution of corrosive sublimate: that is to say, a tablet of seven and a half grains of corrosive sublimate was put into a quart of water which was injected by the nurse into the vagina. As the patient convalesced, she would sit on the commode and would herself insert the nozzle of the syringe into the vagina. But on one extremely hot evening she unconsciously introduced the nozzle into the rectum. The nurse, not knowing how very much astray the nozzle had gone, pumped away until very nearly the whole quart had been taken up. Suddenly the woman began to feel severe rectal pain, and then she realized what she had done. The nurse, although very greatly alarmed, was quite equal to the emergency. She sent in great haste for me, and at once injected quart after quart of water until the lower bowel was well washed out. I hurried the messenger to the nearest drug store for lime water, and then ran all the way to my patient's house, which was nearly half a mile distant. A quart of lime water was now thrown up into the bowel, as an additional precaution; but it was hardly necessary, as the previous repeated injections by the nurse had carried off the poison. Beyond a slight soreness of the rectum, which lasted for twenty-four hours, my patient suffered nothing. But what with the heat, the anxiety, and my hard run, my undercloth-ing became so drenched with perspiration that I had to change them all when I reached home.

But, to return to our patient. It sometimes happens in these cases of violent injury to the soft parts from labor, that menstruation is permanently arrested. Exactly why this happens, I cannot say; but so it was with our patient when I operated on her in 1877; and I have repeatedly seen it in other cases. In one of these cases—that of an unmarried girl—I never could find the cervix uteri, so destroyed and matted together were all the pelvic organs from a neglected labor. Twice, in vain efforts to discover it by dissection, I got into the peritoneal cavity. As she had lost the whole base of her bladder, and also had a very large recto-vaginal fistula, caused by the general sloughing, I closed up her vulva, as in the patient before you. In her case also, the rectum needed education to tolerate the presence of urine. But ultimately it made a very good bladder. If my memory is not at fault, these are the only two cases in which I was forced to close up the vulva. I have, however, on one occasion closed up the womb, or rather the cervix, in the bladder, so that the woman menstruated afterwards into the bladder and out through the urethra.

While talking, I have been denuding the edges of the fistula. These are coaptated by shotted wire sutures. In order to avoid all tension on the parts by the accumulation of urine in the vagina, I shall insert a short catheter into the rectum. These sutures will not be removed for at least a week; but if there should be a leakage from the wound they will be kept in for two weeks, so as to aid the granulating surface to close up. The wire used was No. 31, which is the finest used in gynecological work. My rule in the selection of wire is, to use the finest compatible with safety—the finest for plastic operations on the cervix and on the bladder; the heaviest for perineal tears.

The lesson which we get from this case is to act promptly in obstetric emergencies. My rule is always to interfere, and that promptly, in certain conditions. For instance, in a face presentation, if the occiput cannot be brought down to become the presenting part, I always turn. In a breech case, I make it the rule to bring down one leg; and I thus have the labor wholly under my control. In a shoulder presentation I always give ether, and turn as soon as possible, by the bimanual, or bipolar, method. The most common cause of vesico-vaginal fistula is delay in a head-first labor, after the engagement of the head. Therefore this lesion is more likely to happen in cases of moderate disproportion than in extreme ones; for in the latter the head cannot engage, and it has to be opened before it can delivered.

Medicinal Treatment of Fibroid Tumors.

I expected to operate before you upon this case; but, upon thoroughly examining this woman and learning her history, I have decided not to do so; I have changed my mind and come to this let-alone treatment for some reasons which I wish to impress upon you. The patient is an unmarried woman, forty-two years old, and was beginning to go as long as seven weeks without seeing her menstrual periods, when, no

long ago she began to menstruate profusely every three weeks, or, at least, to have severe hemorrhages from the uterus at these intervals. A few weeks ago her physician discovered, and informed her that she had a tumor of the womb; and she, woman-like, wished to "have it taken out at once," and gave him no peace until he brought her to me. So by agreement I came over to see her yesterday and decided not to operate, or, at least, not to operate now, as I shall presently explain to you. She is forty-two years old; therefore, approaching the climacteric, and her monthly periods had begun to dodge, before these violent hemorrhages set in. Now what causes these floodings? Usually one of only two diseases: either a cancer of the cervix uteri, or a uterine fibroid. If she had been the mother of children, the probability would be that she had a cancer; because this disease usually comes from a cervical tear. But as our patient has never had a child, the tumor turned out to be a uterine fibroid, as under such circumstances it usually does. Old maids and sterile women are very liable to have fibroid tumors of the womb, and very unlikely to have a uterine cancer. Yes, I fully agree with the diagnosis of her physician. She has multiple fibroid tumors of the uterus. There are, at least, three of them that are sub-peritoneal and attached to the left side of the womb. By them the uterus has been pushed over to the right side, and the left ovary is probably much dislocated in relation to the surrounding parts. Now, if any operation were performed, it would have to be one of two, either of which would be difficult and dangerous. The more common of these two is oöphorectomy, with the hope of stopping menstruation and thereby relieving the certainly periodical, and more or less constant congestion of the womb. But this operation would probably be difficult, if not impossible, on account of the size of these multiple tumors. For, sometimes the ovary in these cases has no pedicle, as it is drawn down in close relation to the tumor. Sometimes it is stretched to a mere ribbon or a mere cord several inches in length. Sometimes, indeed, it is so imbedded in the tumor as not to be enucleated safely. The other operation would be the removal of the whole mass—womb, tumors and appendages. But there is some risk attending this operation—a risk to life which her condition does not warrant. Moreover she does not live by manual labor, and therefore she can take care of herself until the change of life takes place, which will bring about the cure of her disease. Nature cures, by causing atrophy and absorption of these growths, whose nutrition is interfered with by the cessation of menstruation.

To tide the woman over to that time, needs some treatment. As she has plenty of fat and blood, she is to have her bowels kept open by saline cathartics; such as Rochelle salts, Seidlitz powders and citrate of magnesia. Then she is to take after each meal twenty drops of the fluid extract of ergot and ten grains of ammonium chloride. The effect of the ergot will be to contract the muscular fibres of the uterus, and thus, by compressing the vessels, to lessen the blood supply of the tumor. Sometimes the womb contracts so firmly as to squeeze the tumor out of its uterine nest into the uterine cavity and expel it per vaginam. The ergot may cause headache, vertigo and nausea, through vasomotor disturbance; and then the dose must be reduced, but not discontinued wholly. The ammonium chloride acts as a resorbent, and clinches the action of the ergot. For continuous treatment, it should not be given in tablet form; as it is likely then to settle itself in one portion of the stomach and dissolve there, irritating the mucous coat of that portion. Give it largely diluted in water, and then it will mix with the contents of the stomach and get still further attenuated. This treatment by ergot and ammonium chloride should be continued for months. I have seen great results follow the continued use of these medicines. The hypodermic administration of ergotine is still more efficacious; but it gives so much pain, so discolors the skin and is so liable to be followed by abscesses or very painful indurations, that I now rarely resort to it.

HOMŒOPATHY IN RUSSIA. — Homœopathy is said to be spreading in Russia, especially in the upper social strata. Societies for the propagation of the Hahnemannian doctrines have recently been established at Tschernigow, Odessa and Warsaw. As has been noticed in other countries, the clergy are conspicuous among the supporters of the great medical heresy, and in Russia the military mind seems also to have an elective affinity for globules and infinitesimal dilutions. At Tschernigow, one of the founders of the new Society is a Bishop.

HYDATID CYST OF THE LIVER.—PLEURISY ASSOCIATED WITH TUBERCULOSIS.[1]

BY JOHN H. MUSSER, M. D.,

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Obstructive Jaundice Due to a Hydatid Cyst.

Gentlemen: A little sooner than I anticipated I am able to demonstrate the morbid anatomy of the case of obstructive jaundice I brought before you last week. You no doubt remember the patient, whose previous history we did not know, except that his jaundice was of a moderately chronic duration, lasting for two months. The fact that he was jaundiced because of obstruction to the bile ducts was plain enough, the question was as to the cause. Without any definite data to sustain us, we came to the conclusion that his condition was due either to carcinoma of the biliary passages, or to their obstruction by gall-stones. In speaking of some of the causes of obstructive jaundice, you will remember that I referred also to hydatid cysts, and round worms as very rare causes of such a condition, so rare that one would hardly be justified in making such a diagnosis except by the most positive exclusion of the other causes of jaundice. You will also remember that I suggested that the question could be solved by means of the exploratory needle and by laparotomy, but that the patient was so ill that these means were scarcely justifiable. Moreover, his blood was so seriously poisoned by the retention of bile, that on this account an operation would not be justifiable, since the patient would probably die of hemorrhage, either from a copious escape of blood at once or from constant oozing. The fatal termination resulted four or five days afterwards, his stupor deepening into coma and death.

The autopsy showed a very remarkable state of affairs. There was no disease outside of the ducts or liver. The tissues and structures showed simply an impregnation by bile. The large common duct was very much enlarged, exceeding the size of my thumb. It could be readily distinguished from the vein alongside of it, and was easily isolated. There was not a sufficient amount of adhesions to cause any doubt as to the relation of the parts. The gall-bladder was enlarged, and distended with a mucoid fluid. That portion of the duct extending from the cystic duct to the duodenum was patulous. The biliary ducts in the liver were dilated, and just above the entrance of the hepatic duct into the liver there was a large dilatation, apparently of the duct, but which I believe to be a cyst which had ruptured into the duct and in that way occluded the canal with the hydatid membranes. The duct itself was not the seat of any disease. This cyst, hydatid in nature, was large enough to hold a good-sized lemon. There was a second cyst whose contents still remained in the periphery of the left lobe of the liver. It had nothing to do with the cause of the jaundice. The contents of the larger cyst, by causing an obstruction of the duct, had given rise to the jaundiced condition of the patient. These large shreds of membrane, which I here show you, could never have passed through the duct into the duodenum. Nature made an effort to accomplish this, but was not able to sufficiently distend the duct.

The question now is, could this man have been relieved by an operation? I think he could, because of the size of the duct. There were so few adhesions that access to the ducts could have readily been had and a cholecystotomy performed relieving the obstruction, while a rubber tube would have drained the cyst, and the patient would probably have recovered. Of course there would have remained the other cyst, which would gradually have increased in size; and, knowing this history of the patient, a second operation could have been performed, either by laparotomy or aspiration. The patient just missed his chance of recovery by not entering the hospital a few weeks earlier.

The lesson we learn from this case is, that an exploratory operation in obscure cases of obstructive jaundice is always advisable. Opening the gall-bladder simply, would not have been of service here. The mucoid contents of the bladder simply indicate that there is an obstruction of the cystic duct, and that the gall-bladder has merely become a large retention cyst, the removal of which would not cure the disease. The fact that this man died of an hydatid cyst of the liver, the contents of which obstructed the duct, would never justify you in making such a diagnosis. It is very probable that never again will you see an instance of such

[1] Delivered at the Philadelphia Hospital.

a condition, unless you settle in some country where it is common, as in Australia or Iceland or perhaps northern Minnesota, in our own land.

Pleurisy with Tuberculosis.

I wish now to call your attention to this patient. He is a slight, delicate-looking young man, 20 years old, a stone-cutter by occupation, who has been much exposed to changes in the weather. His ailments in childhood were not unusual, and his habits were not bad. He has used alcohol moderately. There is nothing peculiar in his family history, and we can find but very little about his residence and his associates—an important point to learn in suspected cases of developing tubercular disease. On the thirteenth of July after doing some heavy lifting, he noticed that he was short of breath. About the same time his work was such that he was frequently chilled and wet through. This shortness in the breathing continued, and was attended with a slight amount of coughing, only noticed on stooping. At the time this cough was most severe, he had a pain in his right side, but none in the left. On July 29, he was obliged to quit work, and was admitted to the hospital on August 12, exhibiting these symptoms: great dyspnœa, especially on walking about; respiration increased somewhat, but not greatly—28 to 34 per minute—cough and fever with great depression and prostration.

Here we have a case of a sub-acute illness with the symptoms pointing to some disease of the chest, occurring in a lad who has been so much exposed that we are led to suspect some form of pulmonary disease. Throughout the whole time since his admission he has had fever, and he has also lost flesh to a moderate degree, while he suffers with night-sweats and great prostration. Note, therefore, in the first place, the gradual onset of the disease, and in the second place, the lung symptoms associated with fever, emaciation—not rapid—and night-sweats. We will now proceed to an examination of his chest.

His respirations, you will notice, are hurried, and there is some flatness on the right side of his chest, with fulness on the left. The lower part of the right side expands, while the left base scarcely moves. On palpation there is found a diminution in the vocal fremitus on the left side, with normal fremitus upon the right. On percussion, there is found dulness in the left second interspace, increasing to flatness further down, with tympany over the gastric area. The right side shows normal pulmonary resonance. On auscultation, I find diminution in the breath sounds upon the left side, with a somewhat exaggerated respiratory murmur on the right side, puerile or bronchovesicular in character. We have here a unilateral increase in the size of the chest, which means a unilateral increase in the amount of its contents. Unilateral diminution in movement shows a diminution in the amount of air there, which is also shown by the absence of normal pulmonary resonance. We are able, therefore, from inspection, to eliminate the fact that this enlargement is due to some enlargement of the lung, since, if due to compensatory emphysema—the usual cause of such an enlargement—there would be an increased amount of air, with exaggerated movement of the chest. That it is in the pleura that we have this increase in the contents, is shown by palpation and in the absence of vocal fremitus. There is something here that prevents the vibration of the voice from reaching the hand. Without doubt, this is a pleural effusion.

We must determine now the character of this fluid, and the cause of the effusion. As to the nature of the fluid, we may learn this either by direct exploration, or by a further study of the physical signs. Serum, blood or pus may be present in the chest. If serum, the symptoms are such as you see present in this case; there are no physical signs by which we can determine the presence of blood from serum; but when pus is present we have the sign of Bacelli to rely on, that is, no transmission of the whispered voice. In this case a hypodermic needle has been used for diagnostic purposes, and a small amount of serum has been withdrawn. Such a procedure must be carried out with care, since, unless done antiseptically, empyema will result.

There are general and local causes of pleural effusion. The heart, kidneys and blood are free from disease, and thus the usual causes being eliminated, we are driven back to the pleura itself in investigating as to the cause of this condition. We learn that the disease developed insidiously, with shortness of breath, slight cough and fever.

Therefore, associated with this local symptom of serum in the chest, we have fever, emaciation and night-sweats.

As an aid to our discussion let us ex-

amine a similar case of effusion, with different general symptoms. Here is another well-appearing man who presents similar local symptoms and signs, which are not so marked as in this young man. There is lessened movement of his chest, slight fulness of the intercostal spaces, dulness on percussion, not very high laterally, and posteriorally beginning at the middle of the scapula and ending in flatness at the base, with absent breathing sounds. He has also slight shortness of breath, and slight pain; but otherwise he is not suffering at all. At times you will see such cases presenting no general symptoms; and if you are not careful to examine the patient all over from time to time, such a condition will often be overlooked. It is a very common thing to find cases of pleural effusion developed insidiously. As soon as the effusion takes place all pain disappears, and the patient may not lay much stress upon the slight pain present at first and lasting only a short period. Why, now, is there such a difference in the symptoms of these two cases? It must be due to a difference in the cause or to a difference in the character of the effusion. It is not due to the amount of fluid present; for this will have no effect upon the fever, emaciation and sweats.

Pleurisy with fever, when of long duration, is due to associated complications, to the peculiar nature of the effusion (purulent), or to a difference in the cause. Is there any specific process which is the cause of this condition in this lad? Is there any septic process here? A woman after confinement will have a chill, irregular fever, and a stitch in her side, a true pleurisy due to septicemia or pyemia. There is nothing like this here. There is no suppuration in any part of the body which would cause septicemia. In cases of tuberculosis, which is another true microbic process, pleurisy, like inflammation of other membranes, is apt to occur. Indeed many believe that pleurisy never occurs except of tubercular or septic origin. Is tuberculosis present in this instance? We have not been able in one examination to demonstrate the presence of bacilli in the sputum or serous exudation. It does not follow that tuberculosis is absent. The micro-organisms may be present in small numbers, and be detected only after frequent examinations. There is, however, undoubted tuberculosis at the apex of the right lung. The physical signs—upon which time will not permit me to detail—show this. The co-existence of this process in the right lung, with the fever, emaciation and sweats, are sufficient to warrant a diagnosis of tuberculosis.

The points to remember here are: the ofttimes insidious onset of pleurisy and its association with tuberculosis.

The treatment of the case varies with the cause. In acute pleurisy with effusion the saline treatment is of service; but in this kind, with fever and prostration, we do not use such depletive measures. The fact that tuberculosis is associated with pleurisy does not compel us to make a fatal prognosis. Tubercular disease of serous surfaces is the most favorable form of the disease. Aspiration, or removal of the fluid in tubercular peritonitis, will often cure the disease; and so aspiration of the pleural sac will favor the cure of such cases. This should be done frequently.

COMMUNICATIONS.

CASE OF OVARIOTOMY.[1]

BY JOHN L. ATLEE, M. D.,
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Fifty years ago, when the operation for the removal of an ovarian cyst was revived by the late Dr. John L. Atlee, of Pennsylvania, and his associates, and for years and years following their renewal of the operation, the man who was courageous and heroic enough to enter the abdominal cavity with the knife was indeed noted and eminent among his confréres. To-day, with the advance in science and surgery, the doctor who has *not* successfully performed a laparotomy is the one who stands noted among his colleagues. Indeed, so very common are the reports of the operations of laparotomy and ovariotomy, that I would not venture to report this case were it not that there are several features connected with it that I have never known to occur before, and which I think will make the report of interest.

In May, 1889, I was called to see Mrs. L., white, 21 years old, married two years, without issue. She menstruated at the age of fourteen, and continued regular. Directly after her marriage, she noticed an en-

[1] Read before the Tri-State Medical Association, October 16, 1890.

largement in her left side, which gradually increased until it became so considerable as to impede locomotion and interfere with respiration. Because of this preying upon the vital sources of the system, and because of the indigestion, which was a prominent symptom, I found my patient greatly emaciated and weak. Upon examination, I diagnosticated a multilocular cyst of the left ovary, and appointed May 15, two weeks later, as the time for operation. On that day I found her with a pulse of 120, her temperature 103°, and her respiration very rapid, and with these symptoms I thought it best not to operate. Upon her earnest solicitation, and that of her family, for some immediate relief, I performed paracentesis, and drew off thirty pounds of a thick, coffee-colored fluid, albuminous in character, and presenting under the microscope the ovarian germ of Drysdale. The operation gave her great relief. On May 25, ten days afterwards, I operated, being assisted by my son, Dr. James H. Atlee, Dr. Force, of Calhoun, and Dr. Richardson, of Charleston, Tennessee, and removed by abdominal section a tumor weighing forty-five pounds, which in every way confirmed my diagnosis. The pedicle, which was short and thick, I secured with two ligatures, before severing the tumor: using one for each half of the pedicle. The ligatures used were Snowden's iron-dyed black silk ligatures, No. 14. After the tumor was severed, there was a profuse hemorrhage, due to the retraction of the artery from the ligature. Another ligature, cast around the stump, secured the artery and stopped the hemorrhage. After thoroughly cleansing the abdominal cavity with warm carbolized water, the divided edges of the peritoneum were brought together with catgut ligature, and the abdominal wound was closed with the iron-dyed ligature, with a drainage-tube of rubber in the lower portion.

The case progressed without a single unfavorable symptom, with adhesion by first intention. About the eighth week after the operation, symptoms of cystitis appeared, with difficult and painful urination. The urethra was found to be closed with an object, which, upon removal, was identified as one of the ligatures used in ligating the pedicle. Following the removal of the ligature from the urethra there was a flow of bloody pus and urine, with a subsidence of all disagreeable symptoms and a speedy recovery.

About the sixth month after the operation cystitis re-appeared, and gradually increased in severity until the second ligature was passed from the bladder. This ligature I have now in my possession. The passage of this ligature was, in a like manner, followed by a flow of bloody pus and urine, and the rapid abatement of all symptoms of cystitis. Since then my patient has remained in perfect health, and is now a stout, strong, healthy woman, busy with the duties of her household.

The interesting feature of this case is the passage of the ligatures from the peritoneal cavity, through the peritoneum and the walls of the bladder and through the urethra. I have no recollection of an ovariotomy that has progressed just as this one did, with the passage of the ligatures through the walls of the bladder and urethra, at the same time occasioning no inflammation of the peritoneum, no escape of urine into the peritoneal cavity, and no cystitis sufficient to endanger the life of the patient.

219 Oak Street.

CARCINOMA OF THE GALL-BLADDER AND LIVER FROM BILIARY CALCULI.

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Carcinoma of the liver is, in three-fourths of the cases, secondary, the primary growth occurring in the stomach, intestines, pancreas or mesentery, and being communicated to the liver either by direct extension or by metastasis. Carcinoma of the gall-bladder, extending into the liver, is comparatively rare. Such a carcinoma is the result of the formation of a mass of gall-stones in the gall-bladder, this causing attacks of inflammation and adhesions forming between the liver and the gall-bladder, which become the seat of carcinomatous growth. Carcinoma of the liver is usually nodular, forming a more or less spherical mass protruding from the surface of the liver and changing its shape. When extending from the gall-bladder, it infiltrates the liver substance, giving an even enlargement. The usual form of growth is of the encephaloid type, cell-nests predominating over fibrous tissue.

The following report describes a case of

carcinoma of the gall-bladder extending into the liver, occurring with no previous attacks of biliary colic or other symptoms pointing to the formation of a mass of gall-stones. That a mass of over twelve hundred stones, some of them of considerable size, could form without giving rise to symptoms sufficient to attract the patient's attention, seems almost impossible.

E. M. was seventy-nine years and eleven months old at the time of her death. The family history was very incomplete. Two sisters had died of cancer—in what situation was not known. The patient had had several children who, at the time of her death, were all living and healthy. She could give no history of any past illness more severe than constipation, and had never had biliary colic. She was seen first at the Dispensary of the New York Infirmary for Women and Children, July 2, 1889. She then complained of having had, for about two weeks, nausea, pain and fulness in the stomach after eating. Her tongue was coated and her bowels constipated. Simple gastric remedies relieved her, and no physical examination was made. She came again January 2, 1890. She then complained of the same symptoms as before, but had also a lancinating pain over the liver running through to the back. She stated that she had had this pain for three months, and had not been feeling as well as usual for a year. Examination of the abdomen showed the liver to be enlarged, projecting a finger's breadth and a half below the border of the ribs in the nipple line. The edge was smooth and hard. Below the liver, and attached to it, but separated from it by a sulcus, was a mass the size of a man's fist, which felt distinctly nodular through the lax and thin abdominal wall, and of stony hardness. This mass was tender on pressure, and was the seat of the lancinating pain complained of. The other abdominal organs were normal, as were also the heart and lungs. The urine was stated to be scanty and contained no albumin, but a few granular casts. The patient was thin, but not cachectic. She had simply the look of poor nutrition, so familiar at dispensaries.

A diagnosis was made of carcinoma of the liver, probably secondary to a deposit in the pyloric end of the stomach or duodenum. The patient continued to visit the clinic up to about February 1, when she became unable to leave her house. She frequently located her pain in the epigastrium, instead of over the liver. She had no vomiting and no jaundice. The bowels were constipated throughout her illness. The stools contained, at times, blood and mucus, and were never clay colored.

By February 8, the patient had acquired the cancerous cachexia, was weak and much emaciated. The pain had increased much. On February 13, vomiting occurred for the first time.

The vomited matter contained no blood. The urine showed a small amount of albumin, but no bile pigment. It deposited a very heavy precipitate of urates. The tumor had increased much in size, and was extremely tender. It seemed now to consist of two distinct masses, separated by a deep sulcus. The spleen was of normal size.

On February 20, the patient's temperature was 100.4°. The patient's mind had not been clear for several days, she was delirious during the previous night, and remained in a semi-conscious state. She complained of pain in the epigastrium, but not over the liver. The tumor had been enlarging rapidly, and now reached the umbilicus, and the liver extended down over the lower mass.

February 21, she had marked fever; the skin was slightly jaundiced; but there was now no complaint of pain. Her urine had a specific gravity of 1.029, was dark brown in color, giving a marked yellow froth on shaking, and a play of colors with the sulphuric acid and sugar test. It contained a trace of albumin.

February 22, the temperature was 99.8°, and the woman had severe pain over the liver and was deeply jaundiced.

On February 23, she had a succession of chills, lasting all day, and towards evening became very feverish. She suffered intense pain, so that she cried out and flexed the legs on the abdomen. On February 24, the pain had passed off, but she remained semi-conscious, and died early on the morning of February 25.

An autopsy was made by Dr. Walter Vaught. The lungs showed a few milliary tubercles at the left apex and firm pleuritic adhesions on the right. The heart was normal. The pancreas, spleen and kidneys were normal. The stomach—the suspected seat of primary carcinoma—was normal. The jejunum and ileum were normal. The colon was crowded with hard scybalous masses of feces, but entirely free from carcinoma. The right lobe of the liver projected two finger breadths below the border of the ribs. The

anterior surface of the right lobe over the region of the gall-bladder was of stony hardness; the left lobe was normal in size. Projecting from the lower surface, in the location of an enlarged gall-bladder, was a hard nodular mass, the size of a man's fist, firmly adherent over its entire upper surface to the liver. In cutting into this mass, the gall-bladder was opened and showed the mass to be composed of gall-stones of all sizes, firmly pressed together and forming a single mass, which was not easily broken up until the incision in the gall-bladder had been lengthened. After removing the stones, the walls of the gall-bladder were seen to be infiltrated with cancerous material, which had extended into the substance of the liver. The mass in the liver formed a patch about the size of the palm of a man's hand, varying from one-quarter inch to one and one-half inches in thickness, smooth and not nodular. The substance was firm and of a white or pinkish color on section, contrasting with the deep color of the congested liver tissue. All the bile ducts were in a state of suppuration, and filled with a mixture of pus and bile. The mucous membrane of the gall-bladder was ulcerated in many places. One ulcer had perforated the wall of the duodenum and formed an opening the size of a five-cent piece. In the cystic duct, at its junction with the hepatic, was found a gall-stone, the size of a filbert and firmly impacted. This entirely prevented the passage of bile into the intestine, and as jaundice did not occur until four days before death, the stone must at that time have reached its position at the junction of the ducts, and the severe colic on the day before death was probably due to its attempt to pass down the duct. That the duct must have been partly occluded four days before death is shown by the beginning of jaundice at that time. This caused the suppuration of the bile ducts and the fever and delirium of the last few days. Several inches of the duodenum were included in the cancerous mass, all being firmly matted together. The lumen of the intestine was in one place contracted so as to admit only the tip of the finger. A section of the cancerous mass in the liver showed cell-nests filled with large cells and separated by a more or less scanty stroma. The deposit had occurred by infiltration directly from the adherent gall-bladder.

The gall-stones were of three distinct kinds. There were about a dozen the size of a filbert and of a whitish color. The remainder were of a dark-gray with a yellowish surface easily flaked off by the nail. There were four hundred, varying in size from that of a small French pea to that of a hazel nut. Besides these, there were a large number of smaller ones, like fine granular sand. Of these eight hundred were counted and many were lost. They appeared to consist of cholesterin, variously colored by bile pigment and were very hard.

While years must have been occupied in the formation of this mass of gall-stones, they had produced no biliary colic, and had never caused sufficient irritation to attract the attention of the patient or of any physician, until the growth of the cancer, five months before death.

160 East Thirty-sixth street, New York.

PERISCOPE.

Diabetic Coma.

The *Lancet*, November 8, 1890, says: Dr. R. Schmitz, of Neuenahr, in Germany, has had a large experience in the treatment of diabetes, and therefore his opinion on diabetic coma is to be regarded with interest. He states that under the term "diabetic coma" two distinct conditions are to be recognized, both of them serious and somewhat similar at first glance, but entirely different as regards their pathology, and requiring different modes of treatment. The first is simple collapse, with coma; the second is an auto-infection, and is diabetic coma properly so-called. By most observers it is ascribed to the condition of acetonuria. The collapse is the result of weakened heart power, brought about by an excess of sugar in the blood causing a general degeneration of the muscular tissue throughout the body, in which the heart participates. During collapse there is marked cyanosis, the respiration is quickened, the pulse is generally about 68 to 72 a minute, the temperature is not raised, the heart's beat is almost imperceptible and the first sound can scarcely be heard. The treatment of this condition, according to circumstances, is prophylactic or active. If the cardiac degeneration is recognized before collapse occurs, the patient must be particularly warned against any violent exertion, cardiac depressants (such as the bromides or antypyrin) must be avoided, but in addition to the ordinary diabetic treatment

a little alcohol should be added to the diet, and the patient should be out in the fresh air as much as possible. During the actual attack stimulants must be employed, of which the best are black coffee, castor oil and hypodermic injections of camphor and musk. In true diabetic coma there are generally well-marked prodromal symptoms—complete loss of appetite, somnolence with unrefreshing sleep, etc. The tongue becomes coated and dry, the breath very fetid. When coma sets in there is fever (100° to 102° F.), respiration and pulse are quickened, the former rising to 45 and the latter to 130 a minute. There is much epigastric pain, but there is no tenderness. The diagnosis is easy and is based on the epigastric pain and rise of temperature (both of which are absent in the first form), on a negative result from an examination of the heart, and on the rapidity of the onset of the coma. The treatment is directed to the removal of the toxic material, which Dr. Schmitz considers accumulates in the intestine. He consequently advises frequent doses of castor oil, even if diarrhœa be already present. He orders half an ounce every hour until a full evacuation is produced, and states that he has had excellent results from this method of treatment.

Salinaphthol in Rheumatism.

Salinaphthol is a combination of salicylic acid with naphthol, and is analogous to salol, which is a combination of the same acid with phenol. It is insoluble in water, and has neither odor nor taste.

In a review of salinaphthol, the *Journal de Médecine*, November 9, 1890, says that the remedy seems to act as well as salol in acute articular rheumatism, and it is well borne. In the dose of five and one-half to seven and one-half grains, repeated four times a day, it produces neither headache, ringing in the ears, nor any symptom of poisoning, even after prolonged use. Kobert claims that it is separated into salicylic acid and naphthol by the pancreatic juice and by the ferment which the intestinal mucous membrane secretes, and that this separation is evidenced by the presence of salicylic acid in the urine. Lépine denies that the separation takes place from the action of the intestinal juice, and admits such separation only as the result of the action of the pancreatic juice. There is here room for fresh experiments to examine whether or not the pancreatic juice really has this action, and if it is not the same for salinaphthol as for salol, which is decomposed not only by the pancreatic juice, but also by the alkaline constituents of the blood.

Salinaphthol should be less harmful than salol, since naphthol is less toxic than phenol. But, up to the present time, clinical experience does not seem to have established the efficaciousness of this medicament.

Railway Readers.

The *Lancet*, November 8, 1890, says: a contemporary recently stated that a French medical practitioner has been collecting statistics with regard to those of his patients who complain of nervous affections, and has come to the conclusion that all the evil proceeds from the practice of reading in the train. We can hardly accept this view. Many thousands of business men have no other time than the half or three-quarters of an hour to learn the state of the markets, the last moves in the politics of the great Powers, general news, and the various items that make up the contents of a morning or evening paper, and it would hardly appear that the duration of the cause is sufficient to produce the effects assigned to it, whilst the majority of people travel too rarely and read to little to suffer at all. Our contemporary suggests that a paper with specially large type should be printed for the use of travelers by rail. We fear it would prove of little service. We suggest that all carriages should, as a general rule, be supplied with a better light.

Ergotin in Gleet.

In the Polish periodical, *Wiadomosci Lekarskie*, No. 8, 1890, p. 250, Dr. A. Roicki highly eulogizes ergotin as a means for rapidly curing chronic gonorrhœa. The drug should be simultaneously used, both internally, in pills, and locally, after the following formula.

℞ Ergotini . . . . . 0.3 gramme
Aquæ destillatæ . . . . . 300.0 grammes
M. D. S. Inject a syringeful into the urethra several times a day.

The injections are said to be tolerated perfectly well. The same treatment proves useful in cases of urethral hemorrhage.

THE

MEDICAL AND SURGICAL REPORTER.

ISSUED EVERY SATURDAY.

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N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

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Make communications as short as possible.
NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

THE END OF THE YEAR.

A PRIVATE WORD WITH OUR READERS.

During the past year the columns of the REPORTER have contained—as will be seen by looking over the Index and the list of Contributors—a large number of scientific papers of great value from men deservedly eminent in the profession and from many others of less extensive reputation, but who are careful observers and skilful practitioners. The practical value of the papers submitted for publication has always been regarded as the best criterion of their usefulness. Especial attention has been bestowed upon the feature of Clinical Lectures; because it is believed that many readers like to hear what they would be hearing if they were again in the schools where the art of medicine is taught. The Department of Correspondence has covered a large number of American and foreign cities, and has included short communications from readers of the REPORTER in every part of the world. The Selections, Translations and Abstracts have been made with great care, and their source has been fully stated, so that proper credit should be given to those of our contemporaries from which they have been taken, and so that any reader might go at once to the original if he wished. The Editorials and Book Reviews, written by the Editor and a number of men especially competent in various departments of medicine, have always been prepared with an eye single to the good of the reader. No interest, no friendship has been allowed to stand in the way of honest criticism; and no praise has been insincerely uttered.

The purpose of the REPORTER is to be a journal wholly and fearlessly devoted to the advancement of the medical profession, and an alert and conscientious friend to every one who consults its pages. This purpose will shape its policy in the year upon which we are about to enter, and in which we hope all the readers of its pages may be abundantly prospered.

HYSTERIA IN MALES.

In a communication to the *Archives de Médecine*, August, 1890, Dr. A. Souques reports thirteen cases of hysteria in men which he has seen in the Broussais Hospital. From an abstract of this paper in the *Bulletin Médical*, October 1, 1890, we learn that Souques thinks that hysteria in the male is by no means uncommon, that it is encountered frequently in ordinary hospital practice, and that it may be more frequent in the lower classes than hysteria in women. The patients he observed were from twenty to fifty years of age, and were nearly all working men, while some of them were in actual destitution. According to Charcot, such persons are more subject than

others to the causes which sometimes give rise to hysteria, such as traumatism, intoxications and infectious diseases. Souques found the cause of hysteria in his cases to be lead poisoning eleven times, traumatism three times and once each syphilis, dysentery and alcoholism. But there must also be an hereditary nervous tendency.

The symptomatology of hysteria in males is variable. Often the onset is marked by an apoplectiform attack, more often, perhaps, by vertigo, dazzling sensations and a disposition to faint. Vertigo appears to characterize hysteria in the male very much as convulsions do hysteria in women. The most frequent motor troubles of hysteria in males are paralyses, while anæsthesia, limited by the median line of the body, are common. In general demeanor a female hysterical patient is usually gay and lively, while a male is likely to be sombre and gloomy. Hysteria in males is a relatively mild disorder; and usually it terminates favorably. The motor troubles are the most rebellious, and the prognosis in regard to them should be reserved. The patient will probably recover, but it cannot be said at what time. The possibility of relapses should be borne in mind.

The treatment of hysteria in males should be directed to both the hysteria and the provoking cause.

Those who feel interested in the subject of hysteria in men will be interested, we think, to know that Dr. Julius Dreschfeld has an excellent article, "On some of the Rarer Forms of Hysteria in Man" in the *Medical Chronicle*, October, 1890. Dr. Dreschfeld takes almost precisely the same view of the etiology of this disorder as does Souques—who appears to have adopted it from Charcot—and reports four cases which differ from those usually observed after shock and injury. The first two cases belong to the group known as spurious hydrophobia or pseudo-hydrophobia. They are similar to cases familiar to all who have made a thorough investigation of the literature of hydrophobia, and—aside from their intrinsic interest—would prove instructive to persons unfamiliar with the disorders which simulate hydrophobia.

The whole subject of male hysteria is one of great interest, and we think it is one in which there is still room for much investigation. The name is unfortunate; but until a better one is suggested it will have to serve to indicate what is now generally—though vaguely—understood by it.

A KOCH INSTITUTE IN NEW YORK.

In striking contrast to the attitude of caution which all scientific medical men are observing towards the Koch remedy for tuberculosis, it was announced on December 21, that a "New York Bacteriological Institute" had been incorporated for "the study and gratuitous treatment of contagious diseases, comprising a Pasteur and Koch department for the treatment of hydrophobia and tuberculosis." In the list of Trustees, the observant reader will not be surprised to find the names of Drs. Gibier and Liautard.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

CYCLOPÆDIA OF THE DISEASES OF CHILDREN. EDITED BY JOHN M. KEATING, M. D., Volume iv. Large 8vo, pp. xii, 1128. Philadelphia: J. B. Lippincott Company, 1890. Sold by subscription.

It is sometimes hard to find a new thing to say about an admirable book, especially when the space which can be given to a single review is so limited as it is in the REPORTER. It is no small praise to say that the fourth volume of Keating's *Cyclopædia of the Diseases of Children* maintains the high standard of those which preceded it. This volume concludes the work; and the whole Cyclopædia stands a monument of medical, editorial and publishing enterprise and skill, of which American medical men may justly be proud. The present volume contains articles on the ear, the eye, hygiene and diseases of the nervous system. Among them, it would be difficult to select those which are most deserving of commendation; but, in noticing this last volume, we think it is not invidious to call especial attention to the admirable article on physical development by the editor, Dr. Keating, and Dr. J. K. Young.

We call attention to this particular article, because it is a pleasure to add this tribute to the ability which Dr. Keating has displayed in preparing this unusually valuable work.

SPECIAL ARTICLE.

KOCH'S REMEDY FOR TUBERCULOSIS.

A RESUMÉ OF ITS HISTORY.

A glance over the history of the remedy proposed by Koch for the treatment of tuberculosis (in the strict sense of this term) shows that at the Tenth International Medical Congress, last August, he announced that he had discovered a substance which has the power of preventing the growth of tubercle bacilli, not only in the test-tube, but also in the body of an animal. He also said that guinea-pigs, which are extraordinarily susceptible to tuberculosis, "if exposed to the influence of this substance cease to react to the inoculation of tuberculosis virus, and that in guinea-pigs suffering from *general tuberculosis even to a high degree, the morbid process can be brought completely to a standstill.*"

This announcement created intense excitement and great enthusiasm, and aroused the most sanguine hopes that before long Koch would disclose the character of the "substance" which could arrest the progress of tuberculosis in guinea-pigs, and which he evidently expected would do the same in human beings.

After the Congress had adjourned it came to be believed that Koch had given some of the "substance" to certain practitioners and clinicians of Berlin for experimentation upon their patients, and before long the newspapers began to contain statements that patients with consumption were being treated with Koch's remedy, and then that some of them were cured.

Prompted probably by these imperfect reports, Koch, in a special issue of the *Deutsche Medicinishe Wochenschrift*, dated November 13, 1890, made an announcement which was immediately sent by telegraph to newspapers in various parts of the world.

In this communication Koch refrained from disclosing the nature of his proposed remedy, but indicated what he thought its administration would accomplish. To understand what this communication seemed to promise, certain of its expressions must be carefully weighed. After describing the diagnostic value he attributed to it because of its effect upon persons believed to be tuberculous, Koch said: "Very much more important than the significance which the remedy (*Mittel*) has for diagnostic purposes, is its curative action (*Heilwirkung*)." He then described its employment to cure two cases of lupus, and in the treatment of tuberculosis of the glands, bones and joints, and says "the success was the same as in lupus, rapid recovery (*Heilung*) in fresh and light cases, slowly progressing improvement in severe cases." When speaking of the effect of his substance on consumptives, he said: "The action of the remedy expressed itself in consumptives in general in such a manner that the cough and expectoration usually increased somewhat after the first injections, then, however, became less and less, so that in the more favorable cases they finally disappeared entirely." With loosening of the sputum and the disappearance of bacilli in it, until it too ceased, he says that night-sweats ceased, the appearance improved, and the patients gained in weight. As to the ultimate results, he said: "Patients treated in the incipient stage of phthisis were all freed from every symptom of disease in the course of from four to six weeks, so that they could be regarded as cured." He said also: "Patients with not too large cavities were markedly improved and almost cured. According to those experiences I would assume *that incipient phthisis may be cured with certainty* (Sicherheit) *by the remedy*. This may be partially true also of cases which have not progressed too far."

Koch recognized the limitation necessary to his statements on account of the short period during which the cases he thought cured had been under observation, but he said it might well be assumed that possible relapses would be "*as easily and quickly cured as the first attack.*"

The publication of this announcement produced the most extravagant outburst of applause and raised the most boundless expectations that a cure for consumption had been discovered. The daily papers gave the greatest prominence to the doings and sayings of all connected with the experimental application of the substance to which the newspapers gave the name of "lymph,"[1] and patients and medical men flocked to Berlin to get or to have something from Koch and those to whom he entrusted it.

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[1] The word "lymph" is no doubt a misnomer, but is used here as a convenient and now recognized term for what Koch called a "remedy" (Heilmittel).

The first full and authentic accounts of what was being done with the "substance" came in the *Deutsche Medicinische Wochenschrift*, of November 20, 1890, which contains reports of the experiences of Fräntzel and Runkwitz, Levy, Köhler and Westphal.

Fräntzel began to use the "lymph" on September 13, and he and Runkwitz give accounts of four cases of far advanced phthisis, none of which were benefited and two of which ended in death before the report was made; of eight cases of moderately advanced phthisis, in which some improvement was noted.

Levy gives an account of the first three cases of surgical tuberculosis treated by Koch's method—the first a case of lupus injected on October 10.

Köhler and Westphal began their treatment on October 11, on eight patients with tubercular disease of the bones and skin, and four patients without tuberculosis. Their account is most full and complete, but they conclude by saying it is only a contribution of facts, and they do not venture to pronounce a judgment in regard to the value of the remedy.

Von Bergmann's communication was the address he delivered before the Free Surgical Association of Berlin, November 16, 1890. In it he gave the results of his experience and mentions the following application of Koch's remedy, exhibiting the patients to the assembly.

LUPUS—13 CASES.

No. of Patients.	No. of Inoc's.	Dates.
1	5	Nov. 6, 8, 10, 12, 14
1		" 6, 7, etc.
1	1	" 6
5	1	" 16, A. M.
5	1	" 16, Ev'g

CERVICAL ADENITIS—3 CASES.

1	5	Nov. 6, 8, 10, 12, 14
1	1	" 16, A. M.
1	1	" 16, Ev'g

JOINT TUBERCULOSIS—16 CASES.

3	5	Nov. 6, 8, 10, 12 14
1	4	" 6, 10, 12, 14
1	1	" 6
4	1	" 16, A. M.
7	1	" 16, Ev'g

TUBERCULAR LARYNGITIS—4 CASES.

1	4	Nov. 10, 12, 14, 16
3	1	" 16, A. M.

He also showed a man who had been supposed to have tubercular laryngitis, but whom he now believed to have carcinoma of the larynx because he did not react, as was expected, to a single injection of Koch's lymph administered that morning.

It will be noted that only nine of these thirty-seven patients had been under treatment as long as ten days; one had been under treatment for only six days; fourteen had had their first injection on the day of the meeting, and thirteen were injected while the meeting was being held. Careful reading of the address shows that Bergmann felt encouraged to hope that the lymph would prove valuable both in the diagnosis and in the treatment of surgical forms of tuberculosis.

The first person to use Koch's fluid in France was Prof. Péan, who, on November 29, described his experiments in a lecture at the Hospital St. Louis, in Paris. He gave a brief account of his observations in fifteen cases and concluded with the statement that "the results do not permit any conclusion in regard to the curative value of the medicament." (*Bulletin Médical*, November 30, 1890.)

Cornil in a lecture at the Laënnec Hospital, November 30, spoke of having administered the "lymph" to a few patients the day before (November 29) and ventured no opinion whatever in regard to its curative power. (*Bulletin Médical*, December 1, 1890.) In a second lecture (*Bulletin Médical*, December 10, 1890) he said that the reaction indicated by Koch had appeared in every case in which he had used the lymph, and this was especially marked in cases in which the tuberculous process was of relatively recent beginning and active. He found the lymph to produce albuminuria and hematuria.

At the Société Medicale des Hôpiteaux, December 5, communications were made by MM. Ferrand, Cuffer and Thibierge, who had just returned from Berlin where they had studied Koch's method under the auspices of the Berlin medical men. Dr. Thibierge had given especial attention to its effect on lupus, and had carefully examined a number of patients who were said in Berlin to be cured. He said to the Society that in view of his own investigations he felt justified in stating that there had not been a single case of even *apparent* cure of lupus with Koch's "lymph." (*Bulletin Médical*, December 7, 1890.)

M. Cuffer described the effect of the "lymph" on cases of lung disease, and called attention to the fact that the remedy depresses the heart and that it is not reliable as an aid to diagnosis because certain cases of tuberculosis have failed to exhibit the promised reaction after its injection.

M. Debove said that his prosector, M. Rémond, stated that he had seen fourteen cases of undoubted tuberculosis in Berlin, in which the reaction had failed to appear. (*Bulletin Médical*, December 7.)

Dr. Charles Talamon, in the *Médecine Moderne*, December 11, 1890, says: "It seems on reading all that has been published so far, as if the only object of pursuit were to obtain the general and local reaction observed by Koch as a consequence of his injection. The more intense this reaction, the more the experimenters seem to be satisfied." He also makes the interesting suggestion that Koch's "lymph" should be used to determine the real nature of bovine tuberculosis—which has been denied to be of the same nature as tuberculosis in mankind—and also to decide what animals are fit for eating and what are dangerous.

Dr. L. Lereboullet, editor of the *Gazette Hebdomadaire*, says in the issue of December 13, that a patient with hip-disease had just died in coma after receiving his second injection by Péan, and that by December 10, eleven cases of death had occurred in Berlin attributable to this treatment.

On November 24, Köhler made an address in the Hygienic Institute of Berlin (*Wiener Med. Presse*, November 30, 1890), going over his experiences for six weeks. He said absolutely nothing new or justifying the belief that the lymph cures anything.

The special correspondent of the *Wiener Med. Presse*, November 30, quotes the disclaimer of Fräntzel and Bergmann that they had obtained actual cures. Fräntzel said he was "only a tyro," Bergmann said: "We must stick to the point that as yet we have not seen a single case of thorough healing." On November 29, Gerhardt said to him, "Here we can only speak of early effects, but not of curative effects." He also calls attention to the unfortunate appearance of greed of gain in cases of many of the medical men who flock to Berlin, and distinctly contrasts what he calls "*Auri sacra fames*" with the old statement: "*Dat Galenus opes.*"

The *Berliner Klinische Wochenschrift*, December 1, 1890, contains a communication by Israel in regard to the anatomical conditions of two cases of joint tuberculosis treated with Koch's remedy. One specimen was taken from the ankle-joint of a patient who had received thirteen injections in the last eight days before the examination was made. The other patient had received seven injections, the last on November 19. One of these cases gave no anatomical evidence of being tuberculous, and the other was very far from conclusive.

The *Münchener Medinische Wochenschrift*, December 2, contains an interesting article by Grünwald, illustrated, showing the effect of the method upon some of the cases of laryngeal tuberculosis treated by Bergmann already referred to. It also contains a summary of the recent publications in regard to Koch's method. Lublinski thinks that the remedy acts favorably upon laryngeal tuberculosis, although he admits that not a single case of real healing has been observed so far, and lays greatest stress upon the value of the lymph as a means of diagnosis.

The *Wiener Medizinische Wochenschrift*, November 30, contains a description of a chemical and microscopical analysis of the fluid of Koch by the Drs. Jolles, by which it appeared that the active principles were certain albuminoids, probably of the group of tox albumin or enzymes.

The *Berliner Klinische Wochenschrift*, December 8, contains an account of the proceedings before the Prussian Legislature in regard to the attitude of the Government towards the preparation and distribution of Koch's material, when Dr. Von Gossler, the minister of public worship (Cultus Minister) announced that the Government would assume control of the matter, and gave, as the chief reason for maintaining secrecy about its composition, the fact that at an interview with him on November 7, "in the presence of two Councillors of State, it was found that Koch was not able (*im Stande*) to give so exact a description of his process as to insure the preparation of an efficient remedy." Something he could tell but, in the opinion of Gossler, not enough to enable even the most skilful bacteriologist to follow his steps exactly and obtain the material he had obtained.

In the *Berliner Klinische Wochenschrift*, December 2, 1890, is a report of a lecture by Krause, on November 27, in regard to his experiences during two weeks and a half with Koch's method. This communication is also of an uncertain sort, expressing more

of hope than of confidence, and confessing that Krause has seen nothing which he could consider a cure.

The *Deutsche Medicinische Wochenschrift*, December 4, contains a communication by Rosenbach, of Breslau, in regard to his observations on fifty-six patients. Again we find the same unsatisfying conclusions founded upon the short period of observation. Rosenbach distinctly states that he is very far from venturing any conclusions in regard to the therapeutic value of this material. A somewhat similiar communication is published from Gerhardt's clinic by Carl von Noorden, in which—as is generally to be noticed in all the German communications—the cases are reported with thorough fidelity, and in sufficient detail to show the careful manner in which the observations have been made, and the candid scientific spirit of those who have made them; but it leads to the same entirely unsatisfactory result, and does not present any good ground for more than hope in regard to its efficiency.

The *Wiener Medizinische Presse*, December 7, 1890, contains an article by Jacksch, of Prague, who believes the remedy to be of a diagnostic value. He thinks that it is a very valuable expectorant in cases of pulmonary tuberculosis. He does not venture to express an opinion in regard to its value in the treatment of lupus.

[TO BE CONTINUED.]

NOTES AND COMMENTS.

Exact Dosage in the Cataphoretic Use of Drugs.

Dr. Frederick Peterson, in the *New York Medical Journal*, November 15, 1890, says that in a previous paper there are figured two cataphoretic electrodes devised for the anodal diffusion of drugs through the skin. The great drawback until the present moment, however, had been the difficulty of accurately regulating the amount of drug introduced. For this purpose rather complicated electrodes had hitherto been required, and even these had been unsatisfactory. He had recently found, however, that all difficulties are easily obviated by the use of a new and exceedingly simple method. Messrs. Waite & Bartlett have made for him a cataphoretic electrode of metal. Instead of covering it, as before, with sponge, the ordinary metal surface is overlaid with a thin disc of platinum, and around the edge of this is placed a narrow rim of soft rubber. The drug to be used is put drop by drop upon a disc of ordinary tissue paper cut to fit the disc of platinum. Filtering paper or linen cloth may be used instead of tissue paper. A disc two or three centimetres in diameter will hold from one to four drops of the solution. When the medicated disc is placed upon the metal surface of the electrode, and the latter then applied to the skin, it is evident that there is a thin capillary layer of the drug in solution exposed to the cataphoretic power of the anode, between the electrode and the skin, and that the quantity of the drug used may be accurately estimated. The current is allowed to flow if desired until the medicated disc becomes perfectly dry. In this way one may introduce, he says, one or more drops of chloroform, methyl chloride, ether, ten-to-twenty-per-cent. solutions of cocaine, a one-per-cent. solution of helleborin, solutions of iodide of potassium, corrosive sublimate, aconitine—in fact, any drug to be employed in this manner.

To further simplify the method, Dr. Peterson has had medicated cataphoretic discs prepared by a pharmacist for use at any time, for the paper discs may be charged with any amount of a watery solution, and, the water being allowed to evaporate, they may be kept on hand indefinitely. It is only necessary to add two or three drops of water to the disc in administering the drug by electricity.

An apothecary has made for him and is prepared to supply any one with the following cataphoretic discs: Discs of menthol, 2 grains; of helleborin $\frac{1}{25}$ grain; of strythnine nitrate, $\frac{1}{32}$ grain; of iodol, 2 grains; of corrosive sublimate, $\frac{1}{8}$ grain; of cocaine hydrochloride, $\frac{2}{5}$ grain; of aconitine, $\frac{1}{64}$ grain; of potassium iodide, 4 grains; of mercury succinimide, $\frac{1}{4}$ grain; of lithium chloride, 4 grains.

Pleasant Laxative for Infants.

According to the *Revue Générale de Clin. et de Thérapeutique*, March 5, 1890, Ferraud uses as a laxative for infants one or two dessert-spoonfuls of the following mixture in a cup of hot milk or weak tea:

℞	Manna	℥ vi
	Magnesiæ Sulphur. loti	aa ℥ iss
	Mellis	f ℥ vi

Evidences of Criminal Poisoning.

In a paper read before the Medical Jurisprudence Society, of Philadelphia, November 11, 1890, Professor John J. Reese, M. D., read an interesting paper on the subject of "What Constitutes Reliable Evidence in Criminal Poisoning." The evidences he grouped under the heads of those derived from the symptoms before death; those derived from *post-mortem* appearances, especially as regarded the stomach; those obtained from chemical analysis; the evidences obtained by experimenting on living animals; and those derived from the circumstances of the case.

In reference to the evidences derived from the symptoms before death, he said it would be impossible to diagnosticate a case on such symptoms exclusively, as certain diseases presented similar symptoms. An exception might be made in poisoning with strong mineral acids, or with hydrocyanic acid. On the other hand, he had known cases of arsenical poisoning to be mistaken for cholera morbus. The second class of evidences, while strongly suggestive, like the first, could not, he said, be regarded as absolute proof, on account of the resemblance to pathological conditions found in certain diseases. It would not be safe, Dr. Reese said, to found a positive diagnosis on the pathological appearance of the lining of the stomach, as many cases of arsenical poisoning had occurred without leaving any evidence of its action on the lining of that organ.

In reference to evidences derived from chemical analysis, he said there were a number of poisons which could not be recognized by any known chemical tests, and other measures had, therefore, to be resorted to. The presence of a poison in the stomach or other organs did not necessarily mean that death was caused by the poison, as the latter might have been injected after death.

Where there was a failure to detect poisons by chemical analysis, it was necessary sometimes to resort to experiments upon living animals, such as dogs, cats and guinea-pigs. But often the most important evidences were those derived from the circumstances of the case, and, in the majority of cases, the evidence was mainly, if not exclusively, circumstantial. Rarely does it happen that there is direct proof of the administration of the poison.

In conclusion, Dr. Reese spoke of the various circumstances to be considered in a given case; such as the proven purchase and possession of the poison by an accused person; the exercise of an exclusive care of the victim during his illness by the accused; and the existence of a sufficient motive on the part of the accused.

Treatment of Delirium Tremens.

At the Congress of German Naturalists, September 15–19, 1890, Aufrecht, of Magdeburg, made some remarks upon the treatment of delirium tremens, which are reported in *Le Mercredi Medical*, November 5, 1890. Two questions, he said, present themselves: Can the disease be radically cured? Is it useful to continue to give alcohol to patients with delirium tremens?

Aufrecht has treated two hundred and ninety-four alcoholic patients between the years 1880 and 1890, and of this number has lost ten. He treated twenty-two patients with chloral and morphine, and four died; since then he has used chloral alone without any failure. He gives chloral in doses of sixty grains, according to the following formula:

℞ Chloralis . . . . . ʒi
Syrupi
Tinct. Aurantii Am. Cort. . . . āā fʒss
M.

This potion, he says, is well borne by patients. It takes effect the first night, but it should be repeated the next night and the night following, so that repose may be complete. At times, in serious cases, thirty grains of chloral should be prescribed in the morning and the same dose (60 grains?) continued every evening for four or five days.

When one has to deal with all sorts of patients who at the same time are alcoholic, it is necessary to treat them actively. Aufrecht gives six fluid ounces a day of Hungarian wine, or the following potion:

℞ Alcoholis (90 per cent.) . . . . . fʒii
Syrupi . . . . . ♏clx
Tinct. Aromat.
Tinct. Amar . . . . . āā ♏xv
Aq. Amygdale. Amar. . . . . ♏iii
Aq. destill. . . . . fʒviss
Sacchari . . . . . qs.
M.

At times, he says, this treatment does not

stop the delirium. He then prescribes forty-five grains of chloral, and has obtained very good effects from it. He says that patients with alcoholic delirium, who have no other affection, do not need alcohol.

Reduction of Hip Dislocations.

Mr. H. Herbert, Surgeon I. M. S., Acting Civil Surgeon at Aden, writes to the *British Medical Journal*, November 8, 1890: An adult Arab was admitted with an old dorsal dislocation of right hip. He had fallen from a camel quite a month before on the outer side of the limb. Thus the displacement was probably direct, and produced by forcible adduction. Hence, possibly, the failure to reduce it by the orthodox manipulations, based on the assumption of all cases being conversions of primary thyroid dislocations. Manipulations and pulleys were alternately tried for quite an hour under chloroform; but the pulleys were practically of no use, owing to the thigh band being too large. At the end of this time the limb could be abducted freely, though scarcely at all at first; and when the limb was pulled vertically upwards there was considerable movement of the head of the bone grating on the ileum. Still we quite failed with the regular movements; so, while an assistant, seizing the limb below the bent knee, pulled forcibly upwards, with the thigh fully abducted and flexed at rather more than a right angle, I, kneeling on the sound side of the patient, wrapped my arms round the limb near the hip, and, leaning my weight on the inside of the knee, so levered the head of the bone up into the acetabulum. The reduction has been permanent. The great ease with which the bone went in suggests that this method may be of somewhat general application. In old cases it probably needs free preliminary movements to break up adhesions. The extension may, of course, be made with pulleys. The essential thing is the maintenance of full abduction, while the head of the bone is pressed up into position.

Bonducine as a Febrifuge.

Bonduc is said by the *Journal de Médecine*, Oct. 12, 1890, to be the fruit of *Guilandila Bonducella* and of the *Cæsalpinia Bonduc*. The oily cotyledons contain a bitter, resinous principle, which is extracted by alcohol. The alcoholic extract is treated with chloroform, water is added to the chloroform solution, and, after agitation, the inferior layer, which contains the bitter principle, is evaporated and washed with ether and petroleum. A white powder is thus obtained, which is bitter, not acrid, soluble in alcohol, chloroform, acetone, acetic acid, fixed and volatile oils; it is sparingly soluble in ether and sulphide of carbon, and nearly insoluble in water, ether and petroleum.

This bitter principle, called bonducine, is soluble in hydrochloric acid, which it colors rose; with sulphuric acid the acid is an amaranth red, made more perceptible on the addition of a drop of chloride of iron. It is administered with success in intermittent fevers, in the dose of one and two-thirds to two and one-third grains. The powder is given in doses of fifteen or thirty grains a day.

The Quantity of Blood in the Brain.

Professor Roy and C. S. Sherrington (*Journal of Physiology*, vol. xi, p. 85), have examined the influence on the cerebral circulation of stimulation of sensory nerves, of the sympathetic, of voluntary movements, and of the action of drugs. The quantity of blood received by the brain is in proportion to the general blood pressure. They state, also, that the chemical products of cerebral metabolism contained in the lymph which bathes the walls of the arterioles of the brain, can produce variations in the caliber of the cerebral vessels, whence it follows that the brain possesses an intrinsic mechanism by whose aid the quantity of blood is made to vary locally in relation to the local variations of functional activity.—*Glasgow Medical Journal*, October, 1890.

Hydrazoic Acid.

Professor Curtius has recently discovered a body which is gaseous, and which has the formula HN_3. It is made by the interaction of two molecules of hydrazine (N_2H_4) with one of benzoylglycollate. Benzoyl-hydrazine is one of the products, and this on heating with nitric acid is changed to the nitroso compound, which on dehydration is changed to benzoylazoimide, and saponification does the rest.—*Chemist and Druggist*, November 1, 1890.

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GERSTS

BOUND BY
BROWN BROS